





Records

- 1. SS Gideon Welles. Launching in 35 days.
- 2. SS Pierre DuPont. Launching in 26 days.
- 3. SS Pierre DuPont. Delivery in 31 days.
- 4. Award of Third Star of The Maritime Burgee.

When students of production dig into figures on Liberty ships, they find a gold mine of records at Oregon Shipbuilding Corporation.

Latest group of "firsts" at Oregon—all turned in within a week's time, make early construction schedules look like a slow train through Arkansas.

On Sunday, July 19, keel was laid on the SS Gideon Welles. On August 23—35 days later—the big ship set a new national speed record when it slid down the ways.

Meanwhile, keel was laid on the SS Pierre S. DuPont August 1. Just 26 days later the former 35-day launching record was whittled 9 days when the DuPont hit the water.

Five days at the Outfitting Dock, and another national record. The DuPont delivery mark is 31 days.



The Third Star of The Maritime Burgee was awarded September 3 in connection with the launching of the SS Andrew Carnegie. Carl W.

Flescher, U. S. Maritime Commission Regional Director for the Pacific Coast, made the award for outstanding Liberty ship production.

The story of records is best told in the words of Edgar F. Kaiser, general manager of the Kaiser shipyards at Oregon, Swan Island and Vancouver.

"People ask me frequently how we do it at the Oregon yard. I tell them that it is the spirit here, the spirit you can see from the supervisors down through the ranks. The emphasis now is on continued rhythmic production, to bring the average time down, to hold it down and conserve manpower."

FOUR MORE IN A WEEK AS O.S.C. CUTS PRODUCTION TIME



Edgar F. Kaiser, general manager, and Mrs. S. S. Inch, sponsor, at the launching of the SS Pierre Dupont.

OREGON FIRSTS

First to adopt assembly line methods.

Best Safety record of any defense plant.

First and only maritime yard to receive navy "E" award.

First yard to receive U.S. Maritime Commission award of merit.

First yard to employ women on ship construction.

First yard to inaugurate christening of ships by wives of workmen.

First yard to complete initial contract with U.S. Maritime Commission.

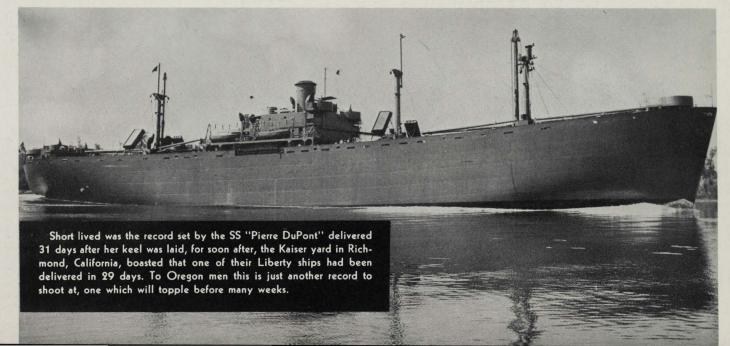
First yard to a launch ship in 26 days.

First yard to outfit a ship in 5 days

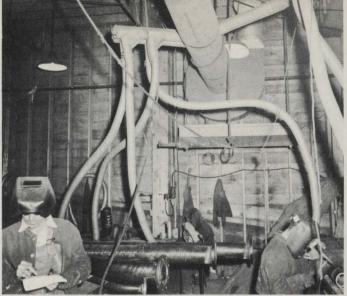
First yard to deliver ship in 31 days

AND AT VANCOUVER

First defense plant in the nation to subscribe 18% of total payroll to war bonds.







1. Part of the exhaust ventilator system used in the pipe welding shop. One suction pipe reaches each welder—pulls away fumes.



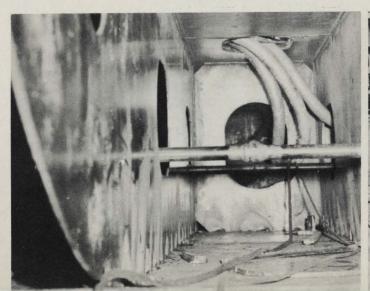
2. Exhaust ventilator suction pipe is shown here correctly placed to remove smoke and fumes from welding operations.

GIVE EMAIR!

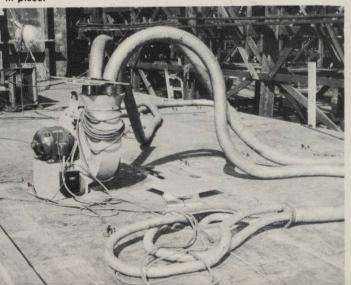
And what a blast of air the boys at O. S. C. would have if all of the 320 ventilating blower units could be concentrated at one point. For these units which do not include permanent ventilating fixtures deliver a total of 1,650,000 cubic feet of air per minute -27,500 cubic feet per second, or enough wind to blow-well, your guess is as good as ours. In addition to these ventilating units at Oregon, Kaiser Company yards at Vancouver and Swan Island are each using 150 units with combined capacities in proportion to the number of workmen they serve.

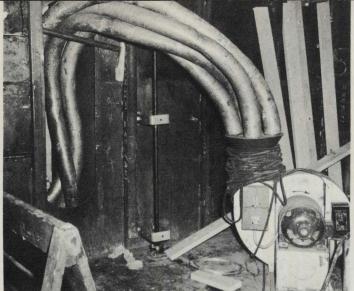
Ventilating the many compartments, holds, inner-bottoms, deep tanks, fore and aft peaks of the three types of ships being built by O.S.C. and Kaiser Company, Vancouver and Portland, is a major problem. Often good workmanship depends on the proper placing of these exhaust tubes in confined spaces where dust, paint fumes or smoke are present. Although the responsibility for keeping these tubes in place is on the shoulders of the lead man in charge of any particular operation, a special department has been set up in each yard to install portable blowers. This department

5. At the rate of 5,000 cubic feet per minute, air is forced into various sections of an inner bottom being welded to the bottom plates of a ship.

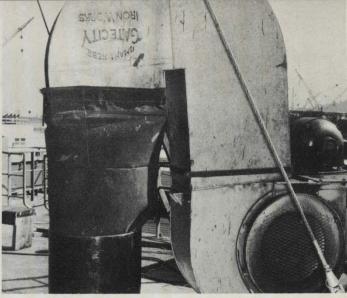


6. Pipes from a blower force air into various inner bottom sections. This blower will be changed to an exhauster when bilge plates are in place.





3. A 5,000 cubic foot capacity blower used to distribute air into the corners of the engine room below.



4. Quite a breeze here. 8,000 cubic feet of air per minute go into the engine room ventilator pipes. Temporary connection shown here is replaced by ventilator funnel when the ship is put into service.



also repairs and maintains this type of equipment, working under the combined supervision of the electrical department and the yard safety organizations.

Portable exhauster fans of two sizes, 500 cubic feet per minute and 5,000 cubic feet per minute capacities, are used to remove smoke and dust from inner-bottoms, tanks, fore and aft peaks, refrigeration rooms and many small confined areas and spaces. Constant attention is required to keep these tubes in the most efficient operating positions. When exhausters are used the intake end of

the flexible metal hose must be kept close to any welding operation. Exhauster tubes generally should be kept near the top of a closed space, forced draft tubes near the bottom of work areas. This procedure will carry off smoke or other impurities in a natural manner.

General ventilation in confined areas is provided by forced draft blowers supplying air through flexible tubes. Engine room ventilation is accomplished by connecting blowers of 8 to 10 thousand cubic foot capacities to the permanent ventilating tubes at their outlet on the bridge deck.

Undergoing dock trials, the ship is provided with additional 5,000 C.F.M. blowers piped through access holes in bulkheads from cargo hold No. 3 to the engine room.

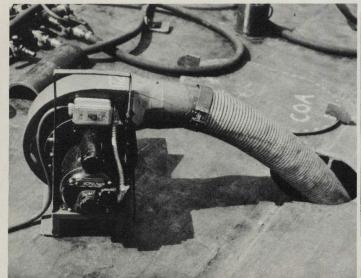
Permanent exhauster systems are

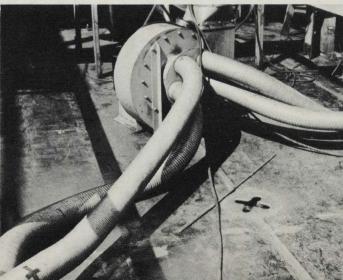
used in shops where galvanized pipe is being welded. Exhauster tubes to these systems must be kept in close proximity to the work in order to draw fumes from the galvanized metal in an effective manner.

These blower and exhauster ventilating units are installed for your protection. See that they do the right kind of a job for you.

- 1. Don't mash or break metal tubing as it is almost impossible to replace any of the 10 miles of flexible metal pipe now in use in the three yards.
- 2. Use blowers to ventilate your work. If you use them as you would an electric fan to keep cool you are likely robbing other workmen of vital ventilation.
- 3. Under no circumstances turn off the blowers unless you have been so authorized by the Safety Department or men in charge of work ventilation.

- 7. This ventilating blower delivers fresh air to workmen in confined quarters below decks.
- 8. Here the blower shown at the lower left on the opposite page has been converted into an exhauster creating circulation in working quarters below.





THE best address in Vancouver—take it from shipyard employees—is Hudson House. More than 1200 of them—single men—are comfortably situated in this "largest hotel in the world."

Manager L. M. Barrett states that four of the ten units of the project—each with 400 rooms—are in operation. New men are registering at the rate of 40 or more every day.

Hudson House when completed will occupy a 45-acre tract. Its facilities are for single men employed at the yards. The tract is being landscaped rapidly. Roads and parking facilities are being laid. Outdoor recreation features are not being overlooked in the expansion program for Hudson House. Softball diamonds, horseshoe courts, swimming and boating accommodations are planned for immediate development.

MAN-WHAT FOOD!

Good food and good work go together. One of the many advantages of Hudson House is the huge dining room where approximately 3600 meals a day are served under the direction



Chef Henry Thiele and Manager L. M. Barrett inspect No. 1 steer beef in one of the immaculate cold storage lockers at Hudson House dining room. Mr. Thiele's contract specifies No. 1 grade food throughout.

Henry Thiele plays host to a group of Kaiser Company, Vancouver, employees. Attractive waitresses keep the service dishes filled and men are urged to eat as much as they wish.

Hudson House





One of four lounge rooms located in each dormitory. Furnished in knotty pine, containing easy chairs and sofas, radio, card tables,

of Henry Thiele, world famous chef. It won't be long until 4000 hungry shipbuilders slide up to the tables, where the meals are served in good old family style.

MORE BUILDINGS

The new Administrative and Commissary building will soon get under way. In this structure will be a post-office, fountain bar, store, library and other service facilities. At the present time Hudson House Exchange is located temporarily in Dormitory B. The temporary library of 5000 free books has been furnished by the Clark County Library Association, and is located in Dormitory D. Hours are from 5:30 p.m. to 8:30 p.m.

writing and ping-pong tables. Employees are invited to entertain their guests in these lounges.

HOW TO REGISTER

New employees can move in the dormitories immediately after they are employed. They are not required to pay in advance. Arrangements for board and room have been made between the Federal Housing Authority and the Kaiser Company for deductions from employee checks. Single rooms rent for \$3.50 per week; double rooms for \$5.00 per week. To insure proper rest and privacy for workmen on the three shifts, graveyard, swingshift and day men are housed in separate dormitories.

Typical single bedroom, furnished with coil spring bed, night table, upholstered chair, chest of drawers, mirror, spacious closet. This type room rents for \$3.50 per week.





Hospital



One of the cheerful 2-bed wards, done in soft grey-green colors, with colorful chairs, spreads and draperies. Each room has its own toilet and



Main entrance and central tower of the 350-foot long building. This tower faces the majestic Columbia River and almost every room has a view of the river and the mountains. Nurses' station, which has direct speaker connection with each room and ward, as well as flash system. Corridors are unusually wide for speedy and efficient service.

N a few days this ultra-modern structure, located on a bluff over-looking the Columbia River, one mile east of the Vancouver shipyard, will be ready for service. The hospital has been ready for several days, but opening has been delayed pending installation of the boiler for the heating and steam system.

wash basin, and each patient has an individual clothes closet. Note the speaker system on the extreme right, connecting with nurses' desk.

All equipment for X-ray rooms, surgeries, physiotherapy, wards, private rooms, consulting rooms and offices is installed. The medical staff of 20 doctors, have moved into the new quarters. Two new ambulances are on the job, making a total of 4 ambulances on duty night and day; two at the yards and two at the hospital. Landscaping of the 15-acre tract is under construction.

FIRST AID

First aid stations are being erected in addition to the present yard field hospital. These smaller field units are open 24 hours a day, with a registered nurse in attendance on all three shifts. They will be located at strategic places throughout the yard as follows: Northwest corner of the new Outfitting Dock building, at the head of Way 8, and in the Plate Shop. Employees are advised to use the field first aid stations whenever in need of first aid treatment.

New employees who desire more information concerning the Medical and Hospital Plan can get this information at the Main First Aid Station or at the Personnel offices.



Portion of the main central lobby, dark green jaspe floor covering, grey-green walls, trim of bleached mahogany, louvered glass doors and windows.

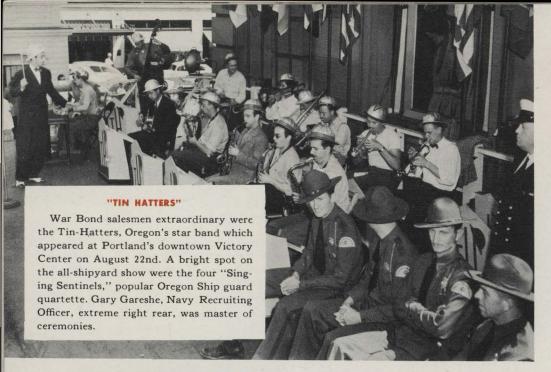


Interior view of one of the six air-conditioned surgeries, showing tiled walls, glass bricked daylight illumination, and modern new operating and lighting equipment. The latest type of operating lamp shown above surgery table cost \$500.



Another surgery photo showing the doctor's scrub-up basins. A tiled and glass brick corridor surrounds the inner surgeries, which are in turn serviced from a central sterilized work area.







SIGN 'EM UP

Under the direction of Ed Olson, girls from the Master File Department, Vancouver, are devoting part of their lunch hours to signing up men in the yard for our hospitalization plan. Good reasons why this plan is meeting with such success are Marie Gomulkiewicz and Lucille Grubb, shown signing Pete Kramer, Welder Leadman, and Pat Patterson, Shipfitter.

Left to right—Marie Gomulkiewicz, Pete Kramer, Pat Patterson and Lucille Grubb.

"GIVE IT TO KOLBERG"



Football fans need no introduction to Elmer Kolberg. The mention of his name brings back memories of Oregon State games of a few years ago when this pile driving blond giant plowed his way to fullback on many All-American teams.

Kolberg is supervisor of engineer's aides on the outfitting dock at Oregon Ship. Before he signed up with the Liberty team, Kolberg played professional football for two years with the Philadelphia Eagles. While he is best remembered for his full-backing at Oregon State, he also played center on the Orange and Black basketball team for three seasons.

MEDICAL AND HOSPITAL PLAN FURNISHES IDENTIFICATION CARDS

Any employee who has subscribed to the Oregon Shipbuilding Corporation and Kaiser Company, Inc., Swan Island Medical and Hospital Plan, may obtain a membership card, giving instructions for obtaining medical or hospital service, at the booth located outside of the First Aid Station.

VOICE FROM THE SOLOMONS



It's a long way from Oregon's Assembly Shop to the Solomon Islands, but Liberty ships make the distance seem shorter to Mrs. Farnham, welder in Bay 2. Lieutenant Commander O. L. Farnham on duty with the

Navy in the Solomons, writes to his wife: "We have had two ships here from your yards. I haven't looked them over for loose plates but guess they haven't any as they came all this distance O.K."

Lieutenant Commander Farnham, former TWA pilot and now serving in the combat forces, has a typical American sense of humor. "All the diversion I have," he writes, "is my plane, a jeep, and a little black dog. The weather is too bad for the plane, the roads are too bad for the jeep, and the dog has the mange!"

OLD MAGAZINES WANTED

Crews on our Liberty ships like to read. We can all help by donating magazines. Best liked: sports, popular fiction, news digests, detectives, westerns, comics, and pocket books of all types.

Bring your contributions to Room 216—O.S.C. Administration Building, where volunteer help will sort, bundle and put magazines on board ships.

The Yard



FINGERPRINT EXPERT

If G-Man J. Edgar Hoover is seeking a female fingerprint expert he can find her at the Vancouver shipyard.

For the past three months, petite Elizabeth Franklin, who photographs and "muggs" new employees, has taken more than 3,000 fingerprints. Elizabeth spent five weeks of intensive training studying the Bertillon system at a special school.

During these five weeks she studied the mysteries of "whorls," "deltas," "loops" and variety of other jargon which is used exclusively in her profession.

One encounters some mighty amusing experiences in the photographing and fingerprinting of some 3,000 persons, according to Miss Franklin.



Some of the girls, according to Miss Franklin, are under the impression that they are about to pose for a magazine cover. When the time comes for Miss Franklin to "shoot" them, pocketbook mirrors get a terrific workout as the new employee applies rouge, powder and straightens unruly strands of hair.

What about the male species? Ah, now you have something. Imagine if you can, some great big bruiser with a hand as big as a ham, blushing furiously while it is being held and "prints" taken. On the other side of the picture, however, is the romantic type, who, desirous of an extra thrill, requests Miss Franklin to take his prints over again. He usually requests this second taking of prints on the premise that he believes the first set wouldn't turn out O.K. and that he wants to save the company both time and trouble!



NEWS AND VIEWS OF THE THREE SHIPYARDS

"INSIDE EUROPE"



You'll find him at Swan Island, Assembly Platform. Not so many years ago he could have been located in any one of several European countries, a featured comedian in a troup of actors that toured the Continent for nine years.

Norman Stevenson and his wife sailed from Barcelona, Spain, on the last two official visas issued by the French Republic. He has seen the bombing of Gibraltar. When Hitler invaded France, he enlisted and did a hitch in the French army.

Stevenson, born in Portland, returned to enable his wife, who is Holland-Dutch, to take out citizenship papers.

Working in a shipyard is like a homecoming to Stevenson, for as a youngster he worked in three yards in World War I.

Stevenson admits a fondness for writing verse. Here's one of them:

LAYMEN'S LAMENT

I'm the answer to a merchant's prayer.
I buy everything—everywhere.
I buy Defense Bonds with my pay,
And the latest gadgets when I may.
I smoke Luckies, I drink Hires;
But where, oh where, can I buy some tires!



MODERN MERCURY

Meet Virginia of Vancouver. You may not know her, but if you're around at Vancouver yard long, you'll see her motorcycling around with urgent messages or official communications.

Virginia Lehne is a veteran motorcyclist, a former member of the Sacramento (Cal.) Motorcycle Club.

"This job is made to order," says Virginia. "The busier I am the better I like it."

BEN ELL



Big Ben Ell, one of Oregon State's toughest linesmashing fullbacks considers his job as shipfitter leadman at Swan Island as his career. Ben has great faith in the future of the Pacific Northwest shipbuilding industry con-

tending that Portland is a natural and logical place for such construction. He has been building ships for a year now, and takes a keen interest in his job.

Heralded as an outstanding high school athlete Ben went from Jefferson High in Portland to Oregon State where he mauled the line with Messrs. Kolberg, Wendlick, Schultz & Co. from '35 to '38. In his last year he took the Oregon-Oregon State Intercollegiate Boxing Title, and he is a former holder of the Pacific Northwest Amateur Wrestling Title.



LIFE BEGINS AT 16

Diminutive sixteen - year - old Merritt Darr, electrician's helper at Vancouver, is one of these days going to graduate to the ranks of master electrician.

Merritt, probably the youngest defense worker in the yard, is a protege of Foreman Wm. Wesley Tippitt, and Leaderman George Cherrington at the-electrical shop on Way No. 2. Nearly every afternoon when Swing Shifter Merritt checks in he is given a short lecture on some of the more intricate problems of his craft by either Tippitt or Cherrington.

The aspiring master electrician, who will enter the Woodland High School this season, expects to take a two-hour daily course which will enable him to continue working at the yard.

ROOMS NEEDED

Many of your fellow workers need rooms for themselves and for their families. If you have a spare room, turn it into a Victory room. What about your neighbors? Maybe they have rooms they can rent, or vacant stores that can be turned into rented property.

The need is urgent. Tell us how many rooms you have available—or any information you obtain concerning apartments or houses and we'll find the tenants.

Talk it over with your family, your friends, then phone WE. 2281, extension 391-2-3, or UN. 3611, extension 421 or 422.



EX-BAND LEADER AND GLOBE TROTTER

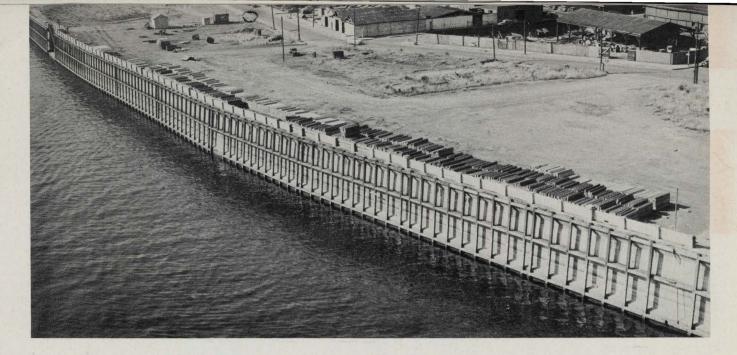
Maurice Binford is an engineer's aide at O. S. C. He is also a musician, cookie salesman and globe trotter. Binford started his musical career early, organizing a 6-piece dance band when he was 13 years old. This aggregation played together through high school in Portland and for three years at the University of Oregon.

Two years ago Maury got itchy feet and, with a companion, began what he hoped would be a world tour. Job hungry upon their arrival at Manila, they met a former college classmate who helped them obtain employment. Binford became district manager of the American Biscuit Company on the Island of Panay, 300 miles north of Borneo, selling cookies and bubble gum to the natives.

Six months later Binford and his companion took a fresh start on their globe tour, going to China, Japan and back to China, where Binford worked for a brief time as a news reporter. War clouds were gathering fast in the East, and the wandering musicians decided they'd better hit for home. They arrived in New York broke as usual, but the resourceful boys drove a car to Portland for a dealer.

careless matches aid the Axis





DID SOMEBODY MENTION TIRES?

With more and more people depending on public transportation to get to work, the two new ferry boats requisitioned by the U. S. Maritime Commission for transporting ship workers will come as welcome relief.

The first of the two ferries, the "Hayward," is scheduled to arrive in Portland on September 9th, where it will be reconditioned for the use of employees going from downtown Portland to Kaiser Company, Inc., Swan Island, and Oregon Shipbuilding Corporation. It will take approximately two weeks to recondition each of the two boats. When completely outfitted each ferry will accommodate 3500 passengers and there will be restaurant facilities, barber shops, news stands and other concessions for the convenience of travelling workmen.

Pictured above is the area along the downtown Portland Front Street seawall between the Burnside Bridge and the Steel Bridge on the west side of the Willamette River. Here construction is beginning on a terminal which will accommodate 150 special shipyard busses in addition to Portland Traction Company equipment. This area will also serve as a terminal for trains to Vancouver.

Upon reaching the Swan Island yard the ferries will dock at a point on the Willamette River opposite the machine shop. At Oregon the ferry landing docks are under construction between Way 11 and Terminal 4.

To provide additional service to the downtown terminal, six special busses will run from Salem and additional transportation from Newberg, Canby, McMinnville, Silverton, Woodburn and Oswego will be provided. Electric trains leaving Oregon City and Milwaukie will also reach the terminal.

So, cheer up, boys! Maybe some of our troubles are about over.



SHIPYARD SLANG



Since the last issue of Bo's'n's Whistle we have uncovered a new batch of slang expressions to help make up the vocabulary of the ship-builders—and after you digest these, send in your own suggestions for apt expressions to be printed in future issues.

Rod Burner — Welder.

Sugar—Union melt welding flux.

Spider — High climbing painter.

Aristocrats of the Bristle — Cabin painters.

Headache—Warning to look up.

Baloney—Electric cable for traveling crane.

Niffles—Girls who are replacing the men in warehouses.

Hook Baiter-Hook tender.

Smoke Eaters—Welders and burners.

Welderettes-Women welders.

Smokey Joe-Plastic armor machine

Hay — Timbers or other material under anything heavy, such as steel plates that are laying around the yard.



SWAN ISLAND

Air travelers who know the Swan Island of a year ago rub their eyes in amazement at the transition from a flying field to a giant shipyard. Special interest at Swan centers on two huge structures—the Plate Shop and Assembly Shop.

PLATE SHOP

Most of the equipment has been installed or is ready for installation. Included are two sets of pyramid plate rolls, largest in the West, a 593 ton electrically driven Press Break and a 96 inch gauge shears.

Sixteen thousand tons of plate production was the August schedule. Peak day was 750 tons. If you like figures, 55,258 tons of steel have been

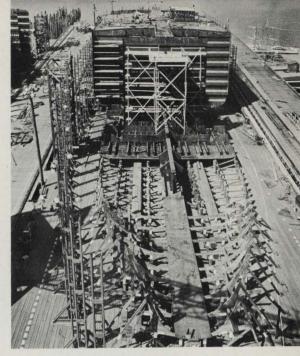
received in the yard from the mill, of which 14,898 tons have been loaded into the Plate Shop since June 8.

ASSEMBLY SHOP

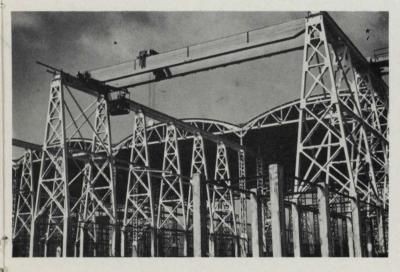
In this building and on the Assembly Platforms 85% of Swan Island tankers will be assembled. Three bays in the Assembly Shop are operating, another is practically complete. Within a month the whole shop will be in production.

With the exception of bilge sections, all assembling will be done inside the Assembly Building. Various deck houses will be assembled on the platforms.

On the 11 bays, 3 will be equipped with 25 ton bridge cranes and will be devoted to erecting Isherwood corrugated bulkheads; 2 with 15 ton cranes are for side shell sections; 1 with 27 ton crane for tank top sections; 5 with 10 ton cranes for miscellaneous bulkheads and deck sections.

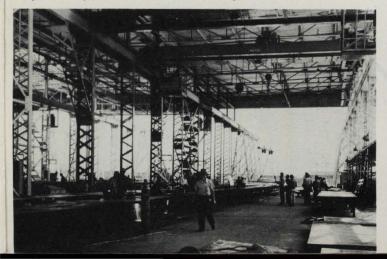


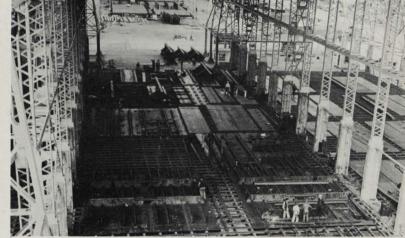
UNLIKE LIBERTY SHIP construction, Swan Island tankers are largely built by sections. Here is Tanker Hull No. 1 with flat keel in place and work nearly completed on the midship section. Note the use of steel scaffolding on the left.



Another view of the Swan Island Assembly Building.

PLATE SHOP to Assembly to tanker is the orderly tanker production assembly line. Here is one of the bays of the Plate Shop where flat plate is shaped to be later assembled in larger sections.





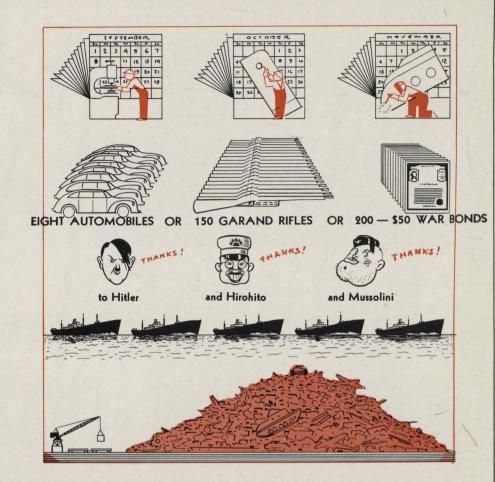
ASSEMBLY BUILDING bay, one of three now in operation. Note the size of men in the right foreground. In bays like this 85% of the tonnage of a tanker will be prefabricated.

PLATE SHOP production is good, with 750 tons per day rolling out for Assembly prefabrication. Manpower and materials are still serious obstacles to full scale output.



HERE'S WHAT THE 971 JOE LAYOFFS* LOOK LIKE IN FIGURES

- It would take 1 man nearly three years to do the work that is lost in one day.
- 2. Every day the Joe Layoffs lose \$7,768 in wages—enough to buy:
- 3. DONATING IN ONE YEAR 2,835,320 wasted hours.
- 4. ENOUGH TO BUILD 5 LIBERTY SHIPS
- That together can carry in one load 40,000 tons of guns—and food—and planes—and tanks to our boys in the front lines.



ARE YOU A JOE LAYOFF?

ABSENTEES ON AN AVERAGE DAY
O. S. C. and Kaiser Co., Portland and
Vancouver.



GIVE A PINT OF BLOOD TO SAVE A LIFE

The life of an American soldier or sailor may be saved by a pint of your blood, easily and painlessly given. Here's what you do:

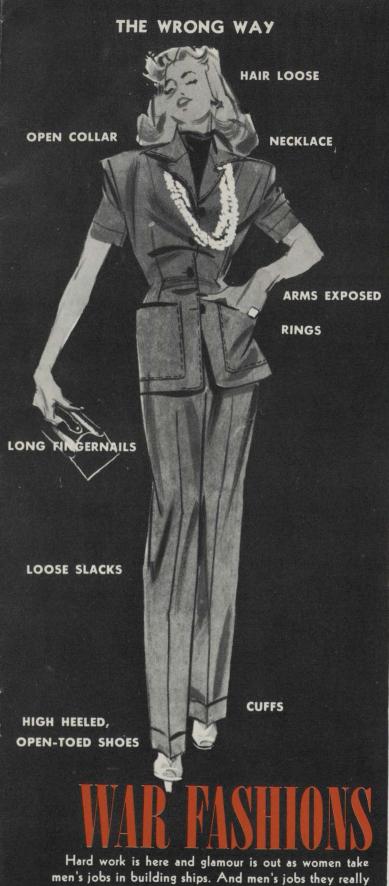
Make an appointment with the Red Cross office at 1520 S. W. Alder Street. The office is open Monday through Friday from 8:15 to 4:05 p.m. and the phone number is Atwater 8561. Any healthy man or woman between the ages of 21 and 60 years may be a donor.

At the Red Cross office the process of donating a pint of blood takes about 45 minutes. The office is staffed with army doctors and graduate nurses. After a short rest you are served fruit juice, coffee and wafers free. Upon leaving you are presented with a bronze pin and aDonors card.

How to prepare for your blood donation:

You may have a cup of black coffee, tea or fruit juice with dry toast up to an hour before your appointment. But do not eat solid food (milk, cream or fats of any kind) for six hours previous to your appointment.

Blood donation is strictly voluntary. It meets a basic war need. The public at large has given splendid response to the appeal, and The Bo's'n's Whistle is happy to call this service to the attention of all shipyard workers.



men's jobs in building ships. And men's jobs they really are; with all of the grime, discomfort and hazard. Miss Shipbuilder has learned too, that war is mighty serious business, that ships aren't being built for fun and that peace-time glamour along with spare tires and breakfast in bed is out for the duration.

Taking a tip from the men on the job, the wise feminine shipbuilder wears working clothes for comfort and safety:

She wears a man's type shirt with a close fitting collar



FOR FEMININE SAFETY

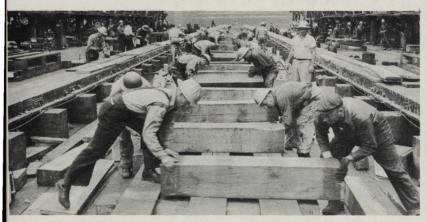
for protection, her hair is up, closely covered to protect it against sparks and machines She wears strong serviceable jeans or overalls without cuffs, heavy low-heeled work shoes and a closely fitting jacket for comfort.

She will leave her necklace and rings at home along with her high-heeled open-toed shoes and inflammable cellulose or silk slacks and jackets. For these things are downright dangerous. Preferred colors are dark and subdued.

The safety record of women in the Oregon yard is excellent. Proper work-wear will help to keep it this way,

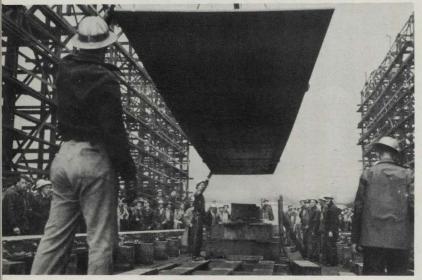
How Liberty Ships are Built





"Get another one started"—and workmen pile into the way, placing timbers in predetermined positions for a new keel.

Down comes the first keel plate, two and one-half hours after a vessel has been launched from this shipway. Keel blocks will be built up to take additional keel plates.



WAYS AND KEEL BLOCKS

From the pre-erection Assembly Area comes the material which will become almost 85% of the tonnage of a finished Liberty Ship. Other material, however, goes directly to the shipways from the Plate Shop, Plate Shop sub-assembly and from outside sources.

After a launching a crew immediately begins to remove the Basekote and Slip Coat grease used on the sliding ways and place it in metal containers to be melted down for use again. While the ways are being cleaned and inspected a combined crew of Shipwrights and Engineers are preparing to lay the keel and foundation blocks which will support the vessel during construction.

The alignment of these blocks and supports and the proper placement of the flat keel plates is of vital importance and requires the utmost accuracy. This is achieved by the use of transits and levels from which sights are taken from various fixed targets to establish a center line.

This might be termed an imaginary line running from bow to stern along the center of the Flat Keel. The importance of the center line cannot be over stressed for from this common source we set up the Base Line, Water Lines, Buttock Lines, Frame Stations, etc., all of which play a part in the construction of any vessel.

Launching a ship literally means to slide it into the water, consequently, the ways that support the ship during construction and the ship itself are built on an inclined plan. This is called the angle of declivity and is set up on the basis of a drop from bow to stern of $\frac{5}{8}$ " per foot. As a result, the bow of the vessel is approximately 17 feet higher than the stern during construction. Thus the problems in building a ship differ considerably from those encountered in building a house or office building. To compensate for this angle he must use a declivity board to determine the proper alignment of parts and assemblies.

With the ground ways as a foundation, sets of keel blocks are laid to predetermined positions along the center line between the launching ways. Each 12" x 12" x 18" keel block, of which there are some 81 along the length of the hull, is supported by heavy criss-crossed timbers.

Each of these supporting units is built by arranging three 12" x 12" x 6' timbers transversely on lighter beams which extend lengthwise on the ways.

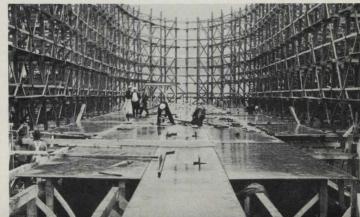
LAYING THE KEEL

The laying of the keel is of tremendous importance, for like the building of a house, we must start with a good foundation.

As these plates are positioned they are fitted and lined up by shipfitters, using jacks, rams and clamps. When this has been completed the plates are tack welded together to hold them in place. The finishing job of welding then gets under way, the upper side of the joint or seam is machine welded, while the lower side is manual welded.

The next step to follow is the positioning of a portion of the first four rows of shell plate to Port and Starboard of the Flat Keel and running fore and aft from the midship center line. These plates are called Strakes. The first four rows of strakes along with the Flat Keel form the bottom of the vessel on which prefabricated inner bottoms are placed and welded to flat keel as construction progresses.

The keel is down and floor sections are already in place. Scaffolding has been set around the stern section of the new ship.



Contributions

THE BIG TOP

O. S. C. means College,
And it means shipyard, too;
But it could mean "One Sell Circus"
To folks like me and you."

Hysters are the "Elephants,"

The crane the "Giant Giraffe,"

Women welders are the "Clowns,"

And they provide the "Laughs."

The "Music," chipper's serenade, The "Tent" a sky of blue; "Performers" are the busy men Who know just what to do.

The "Customers" are helpers, Who get the choicest seats, But like to roam around and Get underneath our feet.

Welding arcs and burners Provide the "Light Effects", And the "Fireworks" displays Are all one could expect.

Leaders are the "Con Men,"
Who'll sell you anything.
Riggers are the "Acrobats"
As they flit from "Ring to Ring."

It's "Never out nor over,"

It goes on all the while.

Just one big "Happy family"

With sometimes a foreman's smile.

Come out and see this "Circus,"
But don't try to "Sneak in."
Go through the "Ticket office"
And join us in the "Din."

We "Play" real hard at "O.S.C." And yet have lots of "Fun," And most of all, Bless Bess, We're making the AXIS run!

> By Don Bennett Shipfitter, O. S. C.

"It is a common thing to see hundreds of men on the adjoining ways of a ship about to be launched, waiting to see it slide into the water. Naturally this is to be expected, but there seemed to be one thing unusual about it. When the ship is launched, there are at least three American flags flying very evidently from it.

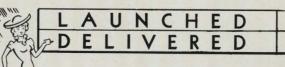
"Let's give the Flag the respect it deserves . . . remove our hats and helmets and remain standing until the ship hits the water . . . for the Flag represents our country and the great cause we are working for.

M. O. Olsen
Boilermaker's Helper.

I wish to take this opportunity to thank my many friends at the O. S. C. for their many visits and gifts while I was recovering from recent injuries.

Al. Pederson

Shorty Peirce wishes to thank all the members of Don Smith's paint gang for the kind contributions during his stay at the Emanuel Hospital. And hopes to be back with the gang soon, swinging a mean brush.





Down the ways to the Willamette went the SS "William H. Seward" on August 20th. The sponsor was Mrs. Irving S. Isakson, wife of a Plate Shop press operator, whose name was selected recently in a shipyard drawing. The "Seward," Oregon's 63rd ship, was launched on August 20.



Mrs. Hugh Miller, mother of Hugh Miller, Jr., O. S. C. messenger boy, christened the SS "Gideon Welles" whose 35 days from keel laying to launching stood as a short-lived national record, beaten later by both the Richmond, California, and Oregon yards.





The SS "Edwin M. Stanton" was sponsored by the wife of a shippard welder, William Donald Smith, who has since joined the Army. Christened on August 26th the "Stanton" was Oregon's 65th Liberty Ship.



66

26 days from keel laying to launching—5 days from launching to delivering was the SS" Pierre S. DuPont," Oregon's 66th ship, delivered August 27th. She was christened by Mrs. S. S. Inch, wife of the General Manager of Columbia Construction Co. in Long Beach.





Making the score 67 ships for Oregon, the SS" Cleveland Abbe" went down the ways on August 31, sponsored by Miss Barbara Quarg. Her Matrons of Honor were Mrs. H. W. Quarg and Mrs. J. F. Reis.



At ceremonies highlighted by the award of "Third Star of The Maritime Burgee," Miss Irene Long, assistant to Admiral Vickery, christened the SS "Andrew Carnegie", Oregon's 68th ship, on September 4th.

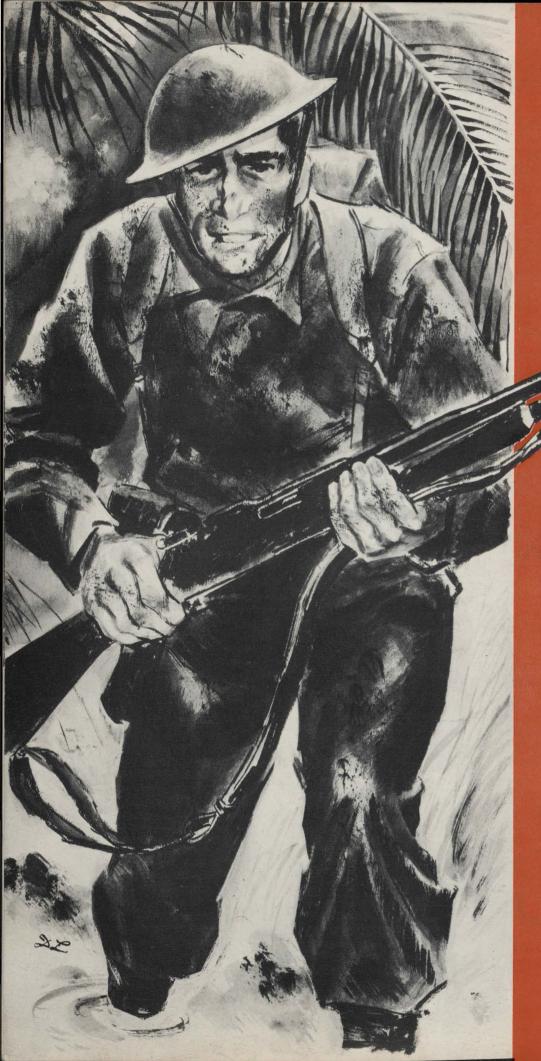


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THE BOSN'S WHISTLE

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ALRIGHT, BILL —
You ask what us guys
Think about . . . and how we're doin!
Funny thing
We'd like to ask you
The same questions —
That is, those left of us.
You see
Bart and Ed and Pete
Aren't here today

We cleaned out a nest Of those slant-eyed rats On the graveyard shift. (now there's a word for you) 24 hours a day and no overtime Listen Bill - you gotta know You're building ships, But to win this war You've got to work like holy hell And get mad - damn mad; Mad enough to do impossible things And keep on doing them. Remember Colin Kelly, Bill, And the men on Bataan? Sorry, Bill, if I seem to preach, But they got Walt and Jim today And I'm mad - and hurt.

* * *

Here come those Jap bombers again —
If we only had more ships, to bring
More planes and guns.
How about it, Bill —

Would ya' mind breakin' just one more record!