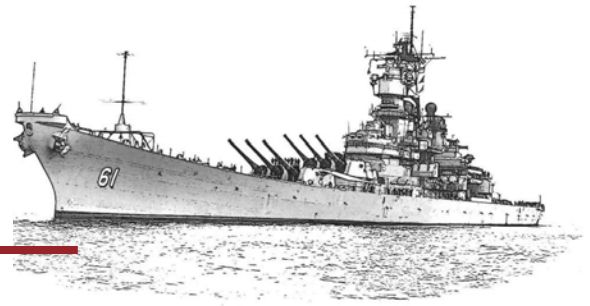


THE IOWAN HISTORY LETTER

Vol. 5 Number 3 Third Quarter, 2016



The Sailor's Companion

Since before USS Iowa was launched, one item aboard has been the favorite sailor's companion. It was with them every day and served a number of purposes. Even today it still provides the same trusty service it always did and some Iowa crewmen still carry it - a Zippo lighter.

It began in the early 1930s, at the Bradford Country Club in Bradford, Pennsylvania. A man named George G. Blaisdell watched a friend awkwardly using a cumbersome Austrian-made lighter. The lighter worked well, even in the wind, due to the design of the chimney. But its appearance was utilitarian. Its use required two hands, and its thin metal surface dented easily.

In the fall of 1932 and early 1933, he decided to improve upon the design of the Austrian lighter. Blaisdell fabricated a rectangular case and attached the top of the lighter to the case with a hinge. He retained the chimney design which protected the flame under adverse conditions. The word "Zippo" was coined by Blaisdell in 1932. He liked the sound of the word "zipper" so he created different variations of the word and settled on "Zippo," deciding that it had a "modern" sound.

The long tradition of Zippo and the military began in World War II. During the war, Zippo ceased produc-

tion of lighters for the consumer market and dedicated all manufacturing to the U.S. military. The iconic wartime black crackle lighters were available for GIs to purchase at Army PXs and in ship stores.

The lighters were not only popular with American soldiers, consumers in markets overseas wanted to buy them as well. Zippo's first non-U.S. market was neighboring Canada in the late 40s. Today, Zippo markets in almost 200 countries and China is the largest overseas market.

Zippo collectors are big fans and there are 10 collectors clubs around the world. Perhaps one of the biggest influences on collecting is Zippo's starring roles in movies, Broadway shows, and television shows. The Zippo lighter has been featured in more than 2,000 films alone. Zippo lighters have "starred" in such diverse productions as "I Love Lucy," "The X-Men," "Die Hard" and "Hairspray - the Musical." Often the lighter is a key prop, used as a device to move the plot forward or to reflect the personality of a character or time period being depicted.

On the music scene, Zippo lighters have been raised high since the 1960s as a salute to favorite performers, a gesture later dubbed the "Zippo Moment." The famous Zippo "click" sound has been sampled on songs, and the lighters themselves have been featured on album covers, appeared in music videos, and wielded in Rolling Stone photo shoots. Images of lighters have even been tattooed on rockers' skin.

In 2002, Zippo expanded its product line to include a variety of butane utility and



Early Zippo Factory



WWII aviation lighter.



**She gave me her ZIPPO
- - - and I married her**

"Pretty swell gal, to part with her precious ZIPPO—she can't buy a new one. I'll remember her every time I light up. In a nor'easter I'll know the ZIPPO will be as dependable as the gal who gave it."

You can't buy a new ZIPPO*, so keep *yours* in good order. Use a fluid that won't gum up the wick—use ZIPPO Long Lasting Fluid—it burns clean. ZIPPO Hard Flints give a bigger spark, wear longer, and fit better (in most any lighter). Package of 4 for 10 cents.

* Sales limited to service men located outside continental U. S. or on high seas.

Demand genuine ZIPPO accessories from your local dealer.

ZIPPO MFG. CO., 7 BARBOUR ST., BRADFORD, PA.

ZIPPO Windproof LIGHTER

candle lighters. In 2010, Zippo purchased Ronson Consumer Products Corporation, a long-time competitor in the lighter market with strong sales of its Ronsonol lighter fluid.

In 2010 Zippo launched a robust line of heat and flame products for outdoor enthusiasts around the world. Zippo's most popular outdoor product is the Hand Warmer followed by a variety of outdoor gear such as the 4-in-1 Woodsman and the Rugged Lantern.

Every Zippo windproof lighter has been made in the USA at the plant in Bradford, except for Canadian lighters produced in Niagara Falls, Ontario from 1949 to 2002. The stamp on the bottom of the lighter indicates where the lighter was made.

A significant company milestone occurred in 2012 when Zippo made its 500 millionth lighter (that's a half a billion). In March, 2016, Zippo production surpassed the 550 million mark.

The Zippo/Case Museum contains the 500 millionth lighter and other unique models, including souvenir lighters from most of the countries where the lighter is sold. The museum also features an enormous collection of Case knives made by Zippo's Bradford-based subsidiary, Case

Cutlery.

From the very beginning, every Zippo lighter has been backed by the company's famous lifetime guarantee – "It works, or we fix it free." To fulfill the guarantee, Zippo has established Repair Clinics in the U.S. (Bradford, PA), Germany, Japan and China.

Beginning in the '40s and continuing today, Zippo has produced lighters with designs depicting images of hundreds of ships, including 14 different designs for USS Iowa. The company is proud of the fact that Zippo lighters were carried across the English Channel during the D-Day invasion.

Zippo lighters were particularly popular with soldiers in Vietnam, where many soldiers had individual messages and artwork engraved on the surface. In the 2000s, Zippo lighters accompanied GIs during all of the conflicts in the Mid-east.

This is an unusual Advertisement

FREE REPAIR SERVICE

We are not asking you to buy a Zippo Lighter

If you own a Zippo lighter which is not in perfect operating condition, Zippo will consider it a favor if you return it direct to us for our free repair service, as we have never charged for the repair of a Zippo regardless of its age or condition.

We guarantee quicker service than you have ever received on anything returned for repair, regardless of what it is or what it cost.

We are the originators of this free service on lighters and we are always anxious that any Zippo we have ever manufactured gives its owner good service.

There is absolutely no handling charge. We prepay return postage.

ZIPPO MFG. CO., 5 Barbour St., Bradford, Pa.

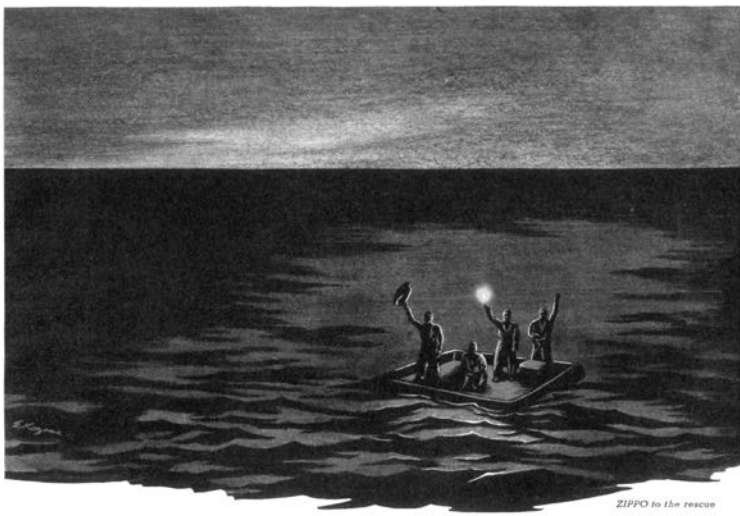
ZIPPO Windproof LIGHTER

© Zippo Mfg. Co.



The trusty Zippo can still be purchased at the Iowa Veterans Association ship's store.

Special thanks to Pat Grandy at Zippo for the article, ads and photos.



ZIPPO is in the War!

Zippo Windproof LIGHTERS have acted as rescue beacons for men in open boats, as a guide through dense dark jungles and as a means of lighting fires for food and warmth. Lighting lanterns as well as pipes is a regular duty for a ZIPPO. Its water-tight case is a life saver.

So, if you are in the service and are going "over there", where matches are scarce and sometimes difficult to light, you'll be glad to have Zippo, the world's most practical windproof lighter, and the choice of the men in the Service.

We now can furnish ZIPPO Windproof LIGHTERS only to our Armed Forces outside of continental United States, and to post exchanges at ports of embarkation and ship service stores on board ship. We hope your local dealer can still supply you—the factory consumer stock is done and gone until metals essential for victory are again available. Sorry.

ZIPPO MANUFACTURING CO., 7 Barbour St., BRADFORD, PA., New York Office: 52 Vandewater Ave.



Windproof, water-tight, permanent wick, hard flint, large fuel capacity, always dependable—that's ZIPPO.



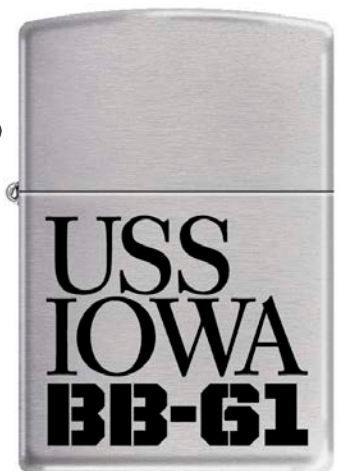
Invest that \$2.50, for the ZIPPO you may not be able to buy, in WAR STAMPS till the days of peace arrive.

FOR YOUR PROTECTION: Look for this engraving  on the bottom of every genuine ZIPPO LIGHTER

ZIPPO Windproof LIGHTER



Zippo in the Ship's Store (above). Earlier Zippos below including one carried ashore on D-Day (left). Note: It still works.



Reunion of the Veterans Association of USS Iowa

August 16 - 21, 2016

**Crown Plaza Hotel
Warwick (Providence) RI.**

PLAN OF THE DAY
PROVIDENCE, RI
16 - 21 AUGUST 2016
TENTATIVE

TUESDAY, 16 AUGUST 2016

TBA Registration Open
TBA Hospitality Room Open
TBA Ships Store Open
1300 City of Providence Tour

WEDNESDAY, 17 AUGUST 2016

TBA Registration Open
TBA Hospitality Room Open
TBA Ships Store Open
1000 Battleship Cove Tour

THURSDAY, 18 AUGUST 2016

TBA Registration Open
TBA Hospitality Room Open
TBA Ships Store Open
TBA Executive Board Meeting Onboard USS IOWA
0900 Newport, RI/Newport Navy Base Tour (Lunch included)

FRIDAY, 19 AUGUST 2016

TBA Registration Open
TBA Hospitality Room Open
TBA Ships Store Open
1000 Boston/USS CONSTITUTION Museum Tour

SATURDAY, 20 AUGUST 2016

TBA Registration Open
TBA Hospitality Room Open
TBA Ships Store Open
0900 Crews Meeting
0945 Johnson&Wales Culinary Museum Tour

1800 Social Hour
1845 Memorial Service
1900 Dinner

SUNDAY, 21 AUGUST 2016

Reunion Completed, members depart.

NOTES:

1. People with special diet restrictions should contact the hotel staff.
2. Hot Breakfast Buffet will be served starting Wednesday, 17 August, in the Hospitality Room.

Tuesday, August 16, 2016 Providence Tour

One 54-passenger motorcoach will depart the Crowne Plaza Hotel in Warwick, RI at 1:00 p.m. and bring passengers on a tour of Providence. A guide will meet at the hotel and will start a narrated tour. Stops will be made at the State House and John Brown House. Return to the hotel by 5:00 p.m.

The rate per person of \$46.00 is based on a minimum of 30 passengers.

Wednesday, August 17, 2016 Battleship Cove

Two 54-passenger motorcoaches will depart the Crowne Plaza Hotel in Warwick, RI at 10:00 a.m. and bring passengers to Battleship Cove in Fall River, MA. Passengers will have free time to explore the ship. Lunch is on their own. At 3:00pm the motorcoach will depart and return passengers to their hotel.

The rate per person of \$49.00 is based on a minimum of 35 passengers per motorcoach.

Thursday, August 18, 2016 Newport RI/Newport Navy Base

Two 54-passenger motorcoaches will depart the Crowne Plaza Hotel in Warwick, RI at 9:00 a.m. and bring passengers to Newport, RI. Once in Newport a guide will step aboard and give a narrated driving tour. At 11:15 a.m. passengers will be brought over to the Breakers Mansion for free time to explore (Self-guided audio-tour). Once done at the Mansion approximately 12:30 p.m. passengers will be taken to the Newport Navy Base for lunch. At 1:00 p.m. passengers will have lunch at the Officer's Club. After lunch passengers can stroll over the Naval Museum. A

departure is scheduled for 4:00pm. Please see below for restrictions while on the Navy Base.
The rate per person of \$77.00 is based on a minimum of 35 passengers per motorcoach.

Friday, August 19, 2016 **Boston Tour**

Two 54-passenger motorcoaches will depart the Crowne Plaza Hotel in Warwick, RI at 9:00 a.m. and bring passengers to Boston, MA. Once in Boston a tour guide will step aboard the motorcoach and start the driving tour of historic Boston. Tour will end at Quincy Market and passengers will have free time to shop and have lunch on their own. At 2:15 p.m. passengers will be transferred over the USS Constitution Museum. Once they go through the museum the actual ship is in dry dock right on the property if passengers want they still can get on the ship but top deck only. At 4:00pm the motorcoach will depart and return passengers to their hotel.

The rate per person of \$44.00 is based on a minimum of 35 passengers per motorcoach.

Saturday, August 20, 2016 **Johnson & Wales Culinary Museum**

One 54-passenger motorcoach will depart the Crowne Plaza Hotel in Warwick, RI at 9:45 a.m. and bring passengers to Johnson & Wales Museum for an escorted tour. At 12:30pm the motorcoach will depart and return passengers to their hotel.

The rate per person of \$33.00 is based on a minimum of 30 passengers per motorcoach.

The Reunion Dinner/Dance will be Saturday evening at 1800. Price is \$41 per plate with three selections for an entrée.

Banquet Menu

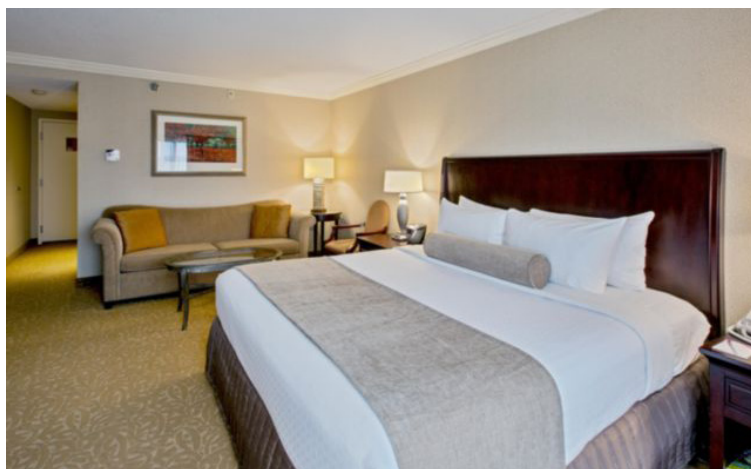
Tossed Garden Salad with choice of dressings

Chicken Francaise with Herb Butter -or-
Baked New England Scrod with Lemon Beurre Blanc -or-
Flat Iron Steak with Roasted shallot Demi Glaze

Chef selection of Potato and Vegetable
Rolls and butter

Cheesecake with Strawberry Compote

Coffee, Decaffeinated and Tea



USS IOWA 2016 REUNION EVENT REGISTRATION FORM
Crown Plaza Hotel, August 16th - 21st. Providence/Warwick, Rhode Island

This order form covers reunion registration, membership dues, planned meals and tours.

Please complete this form and mail it with your check/money order payable to: **Veterans Association of the USS Iowa**
24307 Magic Mountain Parkway #342
Valencia, CA 91355

Registration form must be postmarked no later than 01AUG2016.

On-site registration may be possible: Early registration is strongly encouraged to ensure availability of accommodations.

Questions call 661-755-7676 or Email ussiwaveterans@gmail.com

NAME: _____ Spouse Name _____

ADDRESS: _____

CITY / STATE / ZIP: _____

EMAIL: _____

PHONE: (____) _____ - _____

YEARS SERVED ON USS IOWA: 19 ____ to 19 ____ DIVISION: _____ RATE/RANK: _____

OTHER ATTENDEES: _____

REGISTRATION FEE: (NON-REFUNDABLE) ENTER NUMBER OF ATTENDEES: _____ X \$10.00ea \$ _____
PAYING 2016-2017 MEMBERSHIP DUES (\$20.00): _____ X \$20.00 \$ _____

TOURS

HISTORIC PROVIDENCE TOUR: (Tuesday, 16 August	QTY _____ X \$46.00 \$ _____
BATTLESHIP COVE TOUR: (Wednesday, 17 August	QTY _____ X \$49.00 \$ _____
NEWPORT RI/NEWPORT NAVY BASE TOUR: Thursday, 18 August	QTY _____ X \$77.00 \$ _____ (Lunch Included)
BOSTON AND USS CONSTITUTION TOUR: Friday, 19 August	QTY _____ X \$44.00 \$ _____
PROVIDENCE CULINARY MUSEUM TOUR: Saturday, 20 August (Non-crew meeting participants)	QTY _____ X \$33.00 \$ _____

DINNER/DANCE

Saturday, 20 August
MEMBER / GUEST DINNER CHOICES:

CHICKEN FRANCAISE	QTY _____ X \$41.00 \$ _____
BAKED NEW ENGLAND SCROD	QTY _____ X \$41.00 \$ _____
FLAT IRON STEAK	QTY _____ X \$41.00 \$ _____

TOTAL AMOUNT ENCLOSED: \$ _____ TOTAL

(Please double check total / sign your check / phone & email are helpful if there are questions, please include them if you can)

NO REFUNDS AFTER 1AUGUST 2016 (Except Medical Emergency)

In Case of Emergency Please Contact: _____ Phone: (____) _____ - _____

Hotel inquiries / reservations and payments are made directly with:

Crowne Plaza Providence-Warwick (Airport) 801 Greenwich Ave., Warwick RI 02886 - Hotel Front Desk: 1-401-732-6000

Completed Reunion Event Registration Forms are mailed along with your check/money order payable to:
Veterans Association of the USS Iowa - 24307 Magic Mountain Parkway #342 - Valencia, CA 91355



Clockwise from
top left:
The Breakers in
Newport, RI,
Downtown
Providence, RI,
Old Ironsides,
Battleship Cove,
Old North
Church and Paul
Revere, Boston.



Splice the Mainbrace

“Splice the mainbrace” is an order given aboard naval vessels to issue the crew with an alcoholic drink. Originally an order for one of the most difficult emergency repair jobs aboard a sailing ship, it became a euphemism for authorized celebratory drinking afterward, and then the name of an order to grant the crew an extra ration of rum or grog.

Braces are the lines that control the angle of the yards. On the first rate men-of-war, the mainbrace was the largest and heaviest of all the running rigging; the mainbrace on HMS Victory is 5 inches in diameter. Gunners commonly aimed for the ship's rigging during naval battles, with the mainbrace being the prime target. If the mainbrace was shot away, it was usually necessary to repair it during the engagement; the ship was unmaneuverable without it and would have to stay on the same tack. Even repairing it after the battle was a difficult job; the mainbrace ran through blocks, so it could not be repaired with a short splice or a knot. Splicing in a large run of hemp was strenuous work, and generally the ship's best Able Seamen were chosen to carry out the task under the supervision of the Boatswain (“bosun”). On completion of the task, it was customary for the men to be rewarded with an extra ration of rum. The Boatswain would take a sip from the ration of each of the men he had selected for task. Eventually the order to “splice the mainbrace” came to mean that the crew would receive an extra ration of rum, and was issued on special occasions: after victory in battle, the change of a monarch, a royal birth, a royal wedding or an inspection of the fleet. In cases where the whole fleet was to receive the signal, it would be run up with a lift of flags or signalled by semaphore.

A ration of rum a day was standard issue in the Royal Navy until 1970, when concerns over crew members operating machinery under the influence led to the rum ration being abolished. Restrictions were placed on those who could “Splice the mainbrace”: any man or officer over the age of 20 who desired to take it received an extra issue

of one-eighth of a pint of rum. Lemonade was issued those who did not wish for the rum. The rum was mixed with water to make grog for all ratings below Petty Officer. Only ratings marked “G” (for Grog) in the ship's books could

draw rum, grog or lemonade when the mainbrace was spliced and no payment in lieu was available. Those under 20 were marked “U. A.” (for under age) in the ship's book; they were similarly barred from drawing the daily rum ration. “T” stood for Temperance (for those of Temperance Movement). The issue of rum to Wardroom and Gunroom officers was stopped in 1881 and ended for Warrant officers in 1918; splicing the mainbrace was the only time that officers could be issued with rum.

Other navies abolished the grog allowance far earlier (the United States Navy after the American Civil War), but the order persisted, allow-

ing the crew to take another drink in place of rum or grog. In 1845 it is recorded as being substituted for the more rowdy “Crossing the Line” ceremony. The Royal New Zealand Navy was the last navy to issue junior and senior ratings a daily tot of rum, issuing its last daily rum ration on 1 March 1990. Today the Royal Canadian Navy is more generous with the allowances, allowing crew members to take 2.96 US fl. oz. of spirits compared with the 2.11 US fl. oz. allowed by the Royal Navy, although the Royal Navy does make allowance for paucity of supplies, permitting 12 US fl. oz. cans of beer may be issued if commercial spirits are not available.

The order “Splice the Mainbrace” was still popular with



Splicing the mainbrace aboard HMS Wren during World War II



USS Barb



Crewmen lining up for a tot on HMS Glory.

some of the U.S. Navy's submarine fleet during WW II. On USS Barb, the skipper, Commander Eugene Fluckey, on combat patrols in WW II, during the boat's 8th and 9th missions in 1944, did in fact announce on the 1-MC "Splice the Mainbrace" after each successful attack and sinking of a Japanese ship. On Barb's 8th combat patrol, the skipper promised the sinking of 5 ships; Barb delivered. After each sinking Fluckey had a special cake made and each sailor was granted a shot of rot gut whiskey. On the 9th patrol, the Skipper was able to sneak 24 cases of beer aboard which was distributed after each of Barb's successful attacks. (Fluckey received four Navy Crosses and the Medal of Honor for his efforts aboard the Barb.)

Permission to issue the order to splice the mainbrace is heavily restricted; the Royal Navy allows only the Queen, a member of the Royal Family, or the Admiralty Board to do so. The Royal Canadian Navy permits the Queen, the Governor General of Canada, or the Chief of the Defence Staff to issue it. When the Mediterranean fleet received the order from the Prince of Wales (the future Edward VIII) in 1932 it was the first time it had happened since 1918. It was accompanied by the order to "Mend and

make clothes", another archaic signal which grants the crew a half-day holiday. Ships in most of the victorious fleets received the order at the end of the Second World War. One ship received the or-



Canadian sailors aboard HMCS Prince Robert line up to splice the mainbrace in celebration of V-J Day.

der while still under attack. King George VI issued the order in 1949 to the crew of HMS Amethyst after the Yangtze Incident. It was ordered on the day of Queen Elizabeth's coronation in 1953, and of Prince William's birth on 21 June 1982, when "Splice the Mainbrace" was celebrated in the Fleet just one week after the end of the Falklands War. Nowadays, when rum is no longer issued daily, the order is somewhat more freely given. The Queen issued it after her Golden Jubilee celebrations in 2002, after the Trafalgar 200 Fleet Review in 2005, and after her Diamond Jubilee celebrations in 2012.

In Canada, the order was most recently given by Queen Elizabeth II on 29 June 2010, at the conclusion of the International Fleet Review for the occasion of the Royal Canadian Navy's 100th Anniversary. She signalled:



Queen Elizabeth at the naming of the Royal Navy aircraft carrier, HMS Queen Elizabeth. A good reason to splice the mainbrace.

"It has given me great pleasure to return with the Duke of Edinburgh to Halifax, Nova Scotia, to witness the International Fleet Review celebrating the Centennial of Canada's Navy. Maritime Command has confirmed through the smartness of its people and ships, and superb execution of the International Fleet Review, the best traditions of service on the sea. I offer to all the officers, men and women of the Canadian Atlantic Fleet my congratulations. It is particularly pleasing to see the strong bonds forged by Canada's Navy with the Allied Navies gathered here today. May all visiting sailors and delegations return safely to their homeports with fond memories of this historic celebration. I know how greatly the dockyard and other supporting services have contributed to making this International Fleet review an occasion which I shall long remember. The Royal Canadian Navy can take great pride in the accomplishments of the past, in its ongoing service to Canada, and the Significant contribution to Security on the world's oceans. Prince Philip and I send our warm good wishes to all of you and look forward to following your important endeavors as you sail to meet the challenges of another century of service. Splice the mainbrace."

— Elizabeth R

The Dixie Cup

It can be squared, rolled, crushed, fitted with “gull wings” or simply worn as it comes from small stores. It can be used as a flotation device or a sun shield or even, some claim, as a dog food dish. With its many shapes and uses, it may be the most versatile article of clothing a Navy enlisted man wears.

According to Naval Historian John Reilly, “The ‘dixie cup’-style hat has appeared and reappeared in the Navy as part of the uniform since it was first written into the uniform regulations of 1886.”

That year, the white canvas hat became the replacement for the straw hat previously worn during the warm weather months. The Navy needed a practical summer hat that was easy to clean and stow, cheap to manufacture and comfortable to wear. During the winter, sailors continued to wear a flat, black hat.

Current Navy uniform regulations say the hat must be worn “with the lower front edge approximately one-half inch above the eyebrows and not crushed or bent in the middle.” That leaves a lot of possibilities.

By reshaping the white hat or “dixie cup” to suit their personal style, enlisted sailors have been able, for more than 100 years, to express some measure of individuality in a uniform world.

Uniform regulations may technically forbid such stylistic reshaping, but few sailors can resist.

“When I first put the white hat on, it felt like a bowl sitting on top of my head,” said Data Processor 1st Class Eddie Hawes of Navy Headquarters Information Center, Washington, D.C. “I thought, ‘There must be something I could do to change it.’ The way I put crimps in it made it different from anyone else’s.”

The tradition of personalizing the white hat hasn’t changed much in more than 25 years, according to Master Chief Petty Officer of the Navy, Avionics Technician Master Chief (AW) Duane R. Bushey. “The white hat is like putty - you can mold different characters out of it,” he said. “I wanted my hat to be completely round. I wanted it to droop a bit, so I’d roll it down halfway to loosen it up.”

Master Chief Hospital Corpsman Jerry Robinson,



Command Master Chief at Bethesda Naval Medical Center, recalled how he wore his white hat. “I rolled the top quarter edge. It would flare out and have a flat edge to it. It took a lot of time and care to keep it that way.”

Most sailors usually find it hard work to get their white hats just exactly the way they like them.

“Although I have six hats, I only wear the one I’ve been working on,” said Yeoman 2nd Class Jerry Bradley, a Vice Chief of Naval Operations staff yeoman in Washington, D.C. “It’s softened up and fits better,” he said. “I get attached to one hat at a time.”

There may be many different ways to wear a white hat,

but there are just as many different nicknames - “squid lid,” “dog dish” and “Mason jar top” - these and many other terms have been handed down over the decades. Aviation Electronics Technician Airman Apprentice Doug Paige of Naval Air Station Oceana, Va., remembers why his white hat was called a “dog dish.”

“When I was in ‘A’ school, every time I went to the EM [Enlisted Men’s] club I had

to watch out for Marines. They would steal any sailor’s hat - said they used it as a dish to feed their mascot,” said Paige. “I had to buy nine hats while I was there!”

But despite the unflattering nicknames and occasional abuse, the white hat has gained high status over the generations - it has become a symbol of the Navy. The dixie cup is so recognizable that Hollywood uses it as a prop in movie scenes shot in train stations, bus stations and airports.

“The Navy’s white hat is much more easily identified than other military uniforms,” said CAPT Michael Sherman, Director of Navy Office of Information, Los Angeles, noting that sailors are synonymous with travel and white



A sailor’s first fitting.

hats are synonymous with sailors. "People expect to see them in areas of transit," he said.

The dixie cup has been so reliable that it was phased out only once this century. July 1, 1973, marked the beginning in of some major Navy uniform changes. The results of a Navy-wide study, begun in December 1970, indicated that most sailors wanted a change in their uniforms. The white hat was given up for lost when it was replaced by a CPO [Chief Petty Officer] type hat known as a "combination cover."

But the combination hat was never completely accepted by personnel E-6 and below.

Yeoman 1st Class Pete Martinez,

currently assigned to the Assistant Secretary for Organizational Matters and Administrative Services, Washington, D.C., remembers when he joined the Navy in 1975 and the mixed feelings he had about not wearing the white hat.

"I had always pictured the typical sailor looking like the poster than had the old 'salty' sailor on it. The white hat looked sharp," said Martinez. "I didn't like it when I was issued the combo cover."

The MCPON [Master Chief Petty officer of the Navy] remembers that ambiguity. "Most sailors wanted a uniform change," added Bushey, "and I felt that way too, but I also felt awkward wearing the combination cover as an E-6. The novelty of it wore off in two or three months - I missed my white hat."

Everybody missed it. According to Robinson, "The public probably had a harder time accepting the change than the sailors. They were used to seeing the sailor on a 'Cracker Jack' box."

There was another problem. Ships weren't prepared to provide enough storage space for the combination covers. "The only extra space the Navy added for the new uniforms were a few peacoat lockers they installed on board ships," said Robinson. "One of the 'gifts' sailors E-6 and below had was the extra space they had when they were wearing white hats and 'cracker jack' uniforms. I could probably store half a dozen or so white hats to every one combination cover."

Bushey agreed, "It's much harder to store a combina-

tion cover than it is to store the white hat. The combination cover gets crunched or flattened out," he said, "but the white hat never loses its shape."

There are public relations advantages to the dixie cups, too. "After the white hats were phased back in," recalled Bushey, who was a chief at the time, "I was standing in the San Francisco airport, in uniform. A civilian approached me and said, 'I just want to tell you how sharp the sailors look today.' He had watched the transition from the white hats to the combination covers and back again and was glad to see a sailor 'look like a sailor, again.'"

Everyone agrees that white hats look sharp; the question - today, as it has been for decades - is how to keep them that way.

Keeping the white hat white is important to sailors. The tricks sailors use to clean their dixie cups are as individual and varied as the shape of the hat.

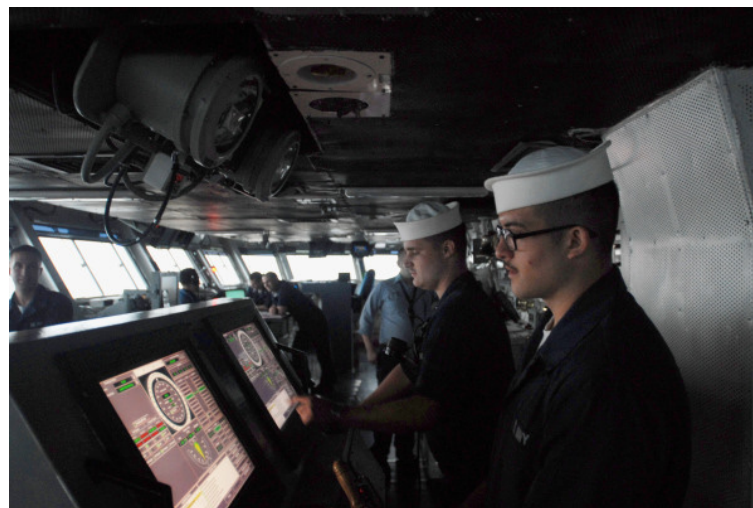
"If my hats get minor stains," said Bradley, "I soak them in bleach and run a toothbrush over the spots. You're supposed to brush with the grain so the hat doesn't fray. Then I throw them in the washing machine with my whites and put them in the dryer."

It wasn't always that easy to clean the white hat. Sailors in boot camp in the '60s learned a different technique to keep their dixie cups in "sat" condition for inspection. Bushey recalled, "I went to boot camp in San Diego in 1962. We would really scrub hard with a scrub brush, a toothbrush and Wisk to get the ring out of the inside. Then, we would attach a 'tie-tie' to the tag. Once attached, we would dip the hats in the toilet and flush." (A tie-tie is a piece of cord with metal tabs on each end that the Navy issued to sailors to hang their laundry).

But if cleaning efforts required by the white hats are high, at least replacement costs are low. If a captain's hat and a sailor's white hat are both blown overboard, the captain has to pay over \$40 to replace his hat, while the sailor



The combination cover.



Sailors aboard USS Ronald Reagan.

is back in business for \$2.60.

Approximately 140,000 white hats are made each month for the Defense Personnel Support Center. The hats are then stored in defense depots in Mechanicsburg, Pa.; Memphis, Tenn.; Ogden, Utah and Tracy, Calif. The hats remain in the depots until DPSC [Defense Personnel Support Center] distributes them to uniform shops throughout the Navy.

It may surprise some to learn that such an American symbol as the Navy white hat is made in Mayaguez, Puerto Rico, at home of Propper International, Inc., the company that has been making white hats for the DPSC for the last 10 years.

Seventy-five rows of stitching keep the brim of the dixie cup stiff. The brims are made on an automatic brim stitcher and the crown is put together on a sewing machine. When the two parts are completed they are stitched together using the sewing machine. The three-part operation takes about seven and a half minutes.

Something assembled so quickly nonetheless has proven to be very durable in popularity.

The white hat has remained a popular item with the civilian public. "I constantly get requests for white hats because they are unique to the U.S. Navy," said Bradley. "Some people even steal them out of my car."

"Traditionally, the white hat means a lot," said Bushey. "When the ship left the pier, we used to roll our hats and throw them to our girlfriends or wives. It was our way of leaving a part of ourselves behind."

Whether squared, rolled or worn with a stiff brim, the white hat gives American sailors their special individuality worldwide. "To me," Bradley said, "the white hat is a symbol of the Navy and it's always going to be."



In the movies. Steve McQueen in "The Sand Pebbles."

Gedunk? Got to have some...

Gedunk (usually pronounced "gee-DUNK" with a hard "g") is both Marines and Navy slang for candy or snacks, and by extension the shipboard or base shop that sells such items. It apparently originally referred specifically to ice-cream. By further extension, greenhorn sailors are sometimes called "gedunks," possibly because snack food is associated with kids.

While both the Marines and the Navy use the term, we all know which service is the always first to hit the beaches. Yes, the Marines can claim credit for the first known military use of the term, in a 1931 issue of their "Leatherneck" magazine.

You can imagine the welter of inane origins that have been invented to explain this weird word. The most sensible wrong guesses presume it's one of the military's ubiquitous acronyms being pronounced as a word. "G.D." (for a presumed "General Dairy"). Another guess is that it's an imitation of the sound of some machine in an ice-cream or snack shop. And, of course, there are suppositions that it's a foreign word—the last refuge of a bad slang etymologist.

Gedunk actually comes from the newspaper comic strip "Harold Teen," which was using the word in association with ice cream by at least the late 1920s. Feel free to be disturbed at the idea that the military was shipping out kids who were still reading "Harold Teen."

Almost all of the above information comes from etymology J.E. Lighter and his former work on Random House's "Historical Dictionary of American Slang." The information is widely repeated everywhere from the Naval Historical Center on down. And yet, it is still often presented incorrectly.

Many people don't realize that "Harold Teen" was not a military comic strip, and that the phrase therefore doesn't have a military origin. Others report "The Geedunk" [sic] was the name of a store in the strip, which is untrue.

"Harold Teen" (originally, "The Love Life of Harold Teen") by Carl Ed started running in the Chicago Tribune in 1919 and was nationally syndicated until Ed's death in 1959. It's credited with originating or popularizing many slang terms.

The titular teenager and his pals hung out at a shop called The Sugar Bowl, whose proprietor, one Pop Jenks, served an extremely popular dessert called the "Gedunk Sundae." That's where the word comes from.

It's unclear what "gedunk" meant in the strip, or if it was ever explained at all. It could well have been just a funny-sounding fantasy word. Lighter speculated it was an imitative play on the sound of ice cream being "dunked" into soda; but the strip's Gedunk was a sundae, not a soda.



DEPARTMENT OF THE NAVY

UNITED STATES SIXTH FLEET
FLEET POST OFFICE
NEW YORK 09501-4002

17 November 1989
On board USS IOWA

A letter to family members of USS IOWA's officers and crew:

As USS IOWA completes a most successful Mediterranean deployment, including three months as the Sixth Fleet flagship, I want to share with you a few thoughts about the fine officers and men of this remarkable ship.

I first set foot aboard IOWA in Gibraltar, shortly after the ship entered the Mediterranean. The professionalism of Captain Fred Moosally, his officers and crew was immediately evident. There was precision and pride in everything they did. Over the next four months, I was impressed time and time again with the skill and positive attitude of the IOWA crew.

There is a small brass plaque on IOWA's bridge which says, 'We are Battleship sailors. When it's getting too tough for everyone else, it's just right for us.' That was certainly true of IOWA. The 1,500 officers and crewmen who serve in USS IOWA carried the additional burden of the turret two tragedy with quiet dignity and never missed a step.

In the course of her deployment, IOWA's guns -- both primary and secondary batteries -- were always on target and impressive to anyone who saw them in action. The ship expanded and refined the capabilities of its embarked remotely piloted vehicle. And IOWA was a major national asset when the Sixth Fleet was called upon to maintain a contingency presence in the Eastern Mediterranean last August.

There is no more impressive a profile than that of a battleship, and IOWA was the dominant feature of any harbor she entered, a superb symbol of the Sixth Fleet motto -- 'Power for Peace.' In ports throughout the Mediterranean, IOWA sailors were outstanding ambassadors for our country. The ship has hosted more than 50,000 visitors since departing Norfolk.

I have no doubt that the media will continue to churn out stories about IOWA, many of which will be based on theory and speculation and written primarily for sensational effect. But what I have seen is far different from what has been portrayed in the press. My impression, as well as my staff's, based on three months of living and working aboard the ship, is one of a marvelous national asset with one of the finest commanding officers with whom I have ever worked, leading an outstanding and truly remarkable crew.

I cannot praise IOWA's crew enough. Their performance has been of the highest order. My fondest hope is that you will pull out all the stops for IOWA's homecoming in December. Your husbands, fathers, brothers and sons really deserve it. They are the very best our Navy has.


J. D. WILLIAMS

Power at Sea

Many Iowa crewmen are unaware of the great debt they owe to a British engineer from the 19th Century. But without his great work, our ship would have been limited to only around 21 knots and would have had great difficulty generating the electricity to run the floating city called Iowa.

Sir Charles Algernon Parsons, OM, KCB, FRS (13 June 1854 – 11 February 1931) was a British engineer, best known for his invention of the steam turbine. He worked as an engineer on dynamo and turbine design, and power generation, with great influence on the naval and electrical engineering fields. He also developed optical equipment, for searchlights and telescopes.

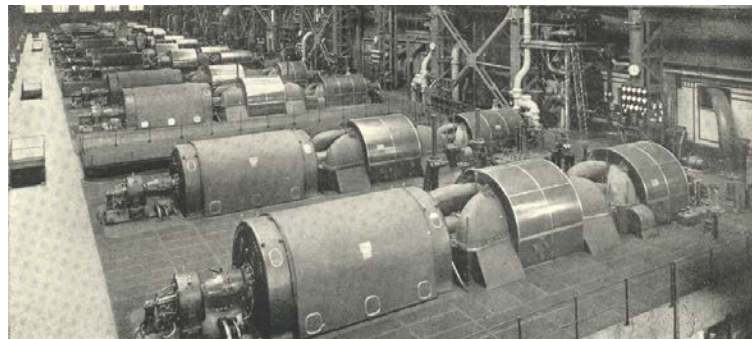
Parsons was born in London into an Anglo-Irish family, youngest son of the famous astronomer William Parsons, 3rd Earl of Rosse. The family seat is Birr Castle, County Offaly, Ireland, and the town of Birr was called Parsonstown, after the family, from 1620 to 1899.

With his three brothers, Parsons was educated at home

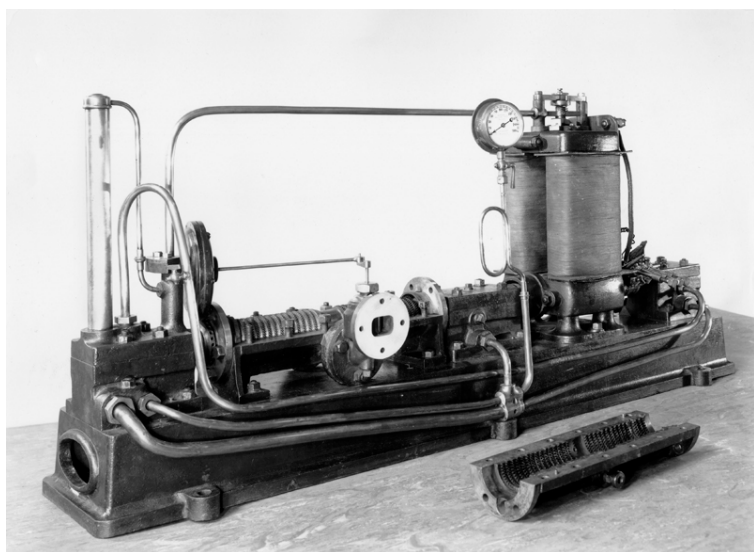
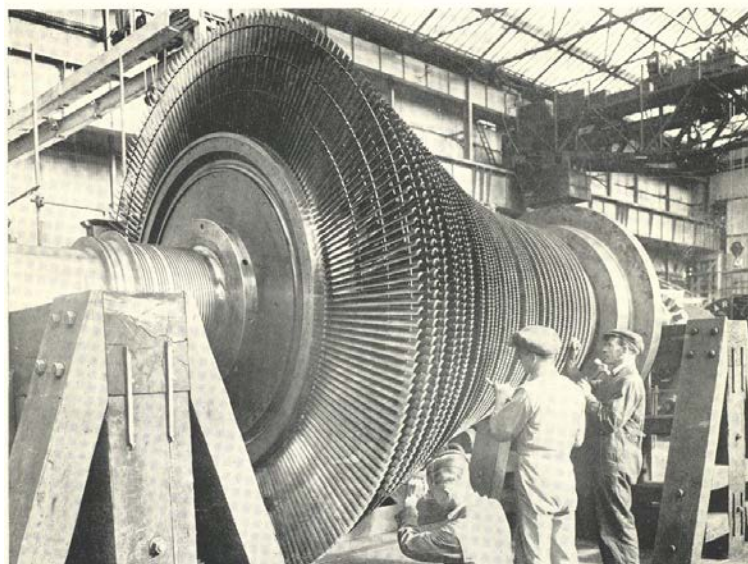


Sir Charles Parsons

St. John's College, Cambridge, graduating from the latter in 1877 with a first-class honours degree. He joined the Newcastle-based engineering firm of W.G. Armstrong as an apprentice, an unusual step for the son of an earl; then moved to Kitsons in Leeds where he worked on rocket-powered torpedoes; and then in 1884 moved to Clarke, Chapman and Co., ship engine manufacturers near Newcastle, where he was head of their electrical equipment development. He developed a turbine engine there in 1884 and immediately utilized the new engine to drive an electrical generator, which he also designed. Parsons' steam turbine made cheap and plentiful electricity possible and revolutionized marine transport and naval warfare – the



*Parsons turbo-alternators aggregating 240,000 kw. in Barking Power Station, 1929.
Below, low-pressure rotor of a 70,000 h.p. turbine.*



Parsons Turbine Generator.

in Ireland by private tutors, all of whom were well versed in the sciences and also acted as practical assistants to the Earl in his astronomical work. One of them later became, as Sir Robert Ball, Astronomer Royal for Ireland. Parsons then read mathematics at Trinity College, Dublin and

world would never be the same again.

The best steam turbine at the time, invented by Gustaf de Laval, was an impulse design that subjected the mechanism to huge centrifugal forces and so had limited output due to the weakness of the materials available. Parsons explained that his appreciation of the scaling issue led to his 1884 breakthrough on the compound steam turbine in his 1911 Rede Lecture:

“It seemed to me that moderate surface velocities and speeds of rotation were essential if the turbine motor was to receive general acceptance as a prime mover. I therefore



Turbinia at speed.

decided to split up the fall in pressure of the steam into small fractional expansions over a large number of turbines in series, so that the velocity of the steam nowhere should be great...I was also anxious to avoid the well-known cutting action on metal of steam at high velocity.”

In 1889, he founded C. A. Parsons and Company in Newcastle to produce turbo generators to his design. In the same year he set up the Newcastle and District Electric Lighting Company (DisCO). In 1890, DisCo opened Forth Banks Power Station, the first power station in the world to generate electricity using turbo generators. In 1894 he regained certain patent rights from Clarke Chapman. Although his first turbine was only 1.6% efficient and generated a mere 7.5 kilowatts, rapid incremental improvements in a few years led to his first megawatt turbine built in 1899 for a generating plant at Elberfeld, Germany.

Parsons was also interested in marine applications and founded the Parsons Marine Steam Turbine Company in Newcastle. Famously, in June 1897, his turbine-powered yacht, Turbinia, was exhibited moving at speed at Queen Victoria's Diamond Jubilee Fleet Review off Portsmouth, to demonstrate the great potential of the new technology. The Turbinia moved at 34 knots. The fastest Royal Navy ships using other technologies reached 27 knots. Part of the speed improvement was attributable to the slender hull of the Turbinia.

Within two years, the destroyers HMS Viper and Cobra were launched with Parsons' turbines, soon followed by the first turbine powered passenger ship, Clyde steamer TS King Edward in 1901; the first turbine transatlantic liners RMS Victorian and Virginian in 1905, and the first turbine powered battleship, HMS Dreadnought in 1906, all of which were driven by Parsons' turbine engines. Today, Turbinia is housed in a purpose-built gallery at the Discovery Museum, Newcastle.

He was elected a Fellow of the Royal Society in June

1898 and received their Rumford Medal in 1902, their Copley Medal in 1928 and delivered their Bakerian Lecture in 1918. He was the president of the British Association for 1916–1919. He was knighted in 1911 and made a member of the Order of Merit in 1927.

The Parsons turbine company survives in the Heaton area of Newcastle and is now part of Siemens, a German conglomerate. Sometimes referred to as Siemens Parsons, the company recently completed a major redevelopment program, reducing the size of its site by around three quarters and installing the latest manufacturing technology. In 1925 Charles Parsons acquired the Grubb Telescope Company and renamed it Grubb Parsons. That company survived in the Newcastle area until 1985.

Parsons was also known for inventing the Auxetophone, an early compressed air gramophone.



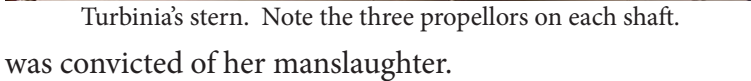
Turbinia today at Newcastle.

Parsons' ancestral home at Birr Castle in Ireland houses a museum detailing the contribution the Parsons family have made to the fields of science and engineering, with part of the museum given over to marine engineering work of Charles Parsons.

In 1883 Parsons married Katharine Bethell, the daughter of William F. Bethell. They had two children: Rachel Mary Parsons (b. 1885), and Algernon George Parsons (b. 1886), who was killed in action during World War I in 1918, aged 31.

Charles Algernon Parsons died on 11 February 1931, on board the steamship Duchess of Richmond while on a cruise with his wife. The cause of death was given as neuritis. A memorial service was held at Westminster Abbey on 3 March 1931.

His widow, Katharine, died at her home in Ray Domesne, Kirkwhelpington, Northumberland in 1933. Rachel Parsons died in 1956; stableman Denis James Pratt



Many of Iowa's engineers know that our engines were built by Westinghouse. In 1895, the Parsons steam turbine was first introduced into the United States, it was not received with much enthusiasm. It was practically five years before it was accorded any general public approval, and it would doubt- less have been considerably longer in obtaining recognition, had it not been that one of the allied Westinghouse interests The Westinghouse Air Brake Company had the courage to install a plant of four 400-kilowatt units. This plant, which is still in operation, was watched with the utmost interest by leading engineers and soon demonstrated the reliability, economy, and general attractiveness of the steam turbine as a prime mover for direct connection to alternating-current generators and later marine steam turbines as propulsion. From that time on the growth in public favor of the Westinghouse Parsons turbo-generator units has been phenomenally rapid and extensive.

While the Westinghouse Machine Company commenced its turbine work under the American patents of the Honorable Charles A. Parsons, which it purchased outright, it has been no mere copyist, but has from the first worked along original and progressive lines. For example, it first demonstrated the practicability of single-cylinder units of large powers. In 1901, it built and installed for the Hartford Electric Light & Power Company, Hartford, Conn., a turbine of 2000 kilowatts capacity in one cylinder. Up to that time no single-cylinder turbine of larger than 500 kilowatts capacity had been built, and even with separate high and low-pressure cylinders, 1000 kilowatts was then the record size. Notwithstanding predictions

The combination impulse and reaction turbine, and the double-flow design, which made it possible to build turbines of larger capacities and higher rotative speeds than would otherwise be possible, are both instances of Westinghouse improvements, inventiveness and originality. This Company also introduced the governor-controlled by-pass for automatically taking care of over-loads.

Westinghouse

AC GENERATOR

1250	KVA	80
1583	VOLTS	1200
450	VOLTS	100
2000	AMPERES	100
80	PERCENT	1000
3	PHASE	33000
1941	DATE OF MANUFACTURE	

BUREAU OF ENGINEERING, NAVY DEPARTMENT
 WASHINGTON, D. C.
 JAN 1918

A photograph showing the interior of a ship's hull. Large white cylindrical structures, likely part of a water treatment or storage system, are visible. A metal staircase with a handrail leads up to a platform where a person is standing. The space is dimly lit, with some overhead lights visible.

The Iowan History Letter Third Quarter 2016

Medicine at Sea

A Ship's doctor or Ship's surgeon is the person responsible for the health of the people aboard a ship at sea. The term "ship's doctor" or "ship's surgeon" appears often in reference to the Age of Sail British Royal Navy's "surgeons". These men, like other physicians, often did not have much medical training. They cared for the members of the ship, dealing with wounds from battle, disease and the other medical problems which plagued the Navy throughout the world.

During the Age of Sail, the Royal Navy carried trained medical officers aboard its warships, who usually learned their trade before coming on board ship. They were generally called surgeons. The Navy Board qualified surgeons through an examination at the Barber-Surgeons' Company and they were responsible to the Sick and Wounded Board under the Navy Board. Warranted Naval Medical officers, similar to doctors on shore, were not required to have a medical degree and were generally trained by apprenticeship. By 1814, the Royal Navy had 14 physicians, 850 surgeons, 500 assistants surgeons caring for 130,000 men on shore and at sea. They were very well paid, starting at £14 per month in 1815 for surgeons with less than 6 years of experience, up to £25 4s for 20 years of experience. They were also allowed £43 for equipment, £5 for every 100 cases of venereal disease they treated, and a personal servant. Factoring in prize money, a ship's surgeon could make well over £200 a year.

Surgeons were ranked by the Navy Board based on their training and social status. Surgeons were wardroom warrant officers with a high status, billeted along with the other officers in the wardroom. Until the Navy's medical services were reorganized in 1806, surgeons were warranted by individual ship captains, not commissioned by the Admiralty. After 1808, surgeons, like masters were



Tools of a ship's surgeon in the early 19th century.

considered equivalent to commissioned officers and were 'Warrant officers of Wardroom Rank'.

Surgeons were assisted by surgeon's mates, who after 1805 were called assistant surgeons. The surgeon and his mates were assisted by boys, who were called loblolly boys, named after the gruel commonly served in the sick bay. A small number of doctors with a prestigious medical education were ranked as physicians; they would supervise surgeons on ships or run hospitals on shore.

The surgeon's duties included responsibility for his mates and loblolly boys, visiting patients at least twice a day, and keeping accurate records on each patient admitted to his care. The surgeon would take morning sick call at the mainmast, assisted by his mates, as well as tending to injured sailors during the day. During sea battles, the surgeon worked in the cockpit, a space permanently partitioned off near a hatchway down which the wounded could be carried for treatment. The deck was strewn with sand prior to battle to prevent the surgeon from slipping in the blood that accumulated.

In addition to caring for the sick and wounded, surgeons were responsible for regulating sanitary conditions on the ship. They fumigated the sick bay and sometimes whole decks by burning brimstone (sulfur), and main-



Treating battle injuries aboard ship in the early 19th century.

Note the wounded coming in (left), being treated, then laid aside to recuperate (right).



William P. C. Barton, First Navy Surgeon General.

tained the ventilating machines that supplied fresh air to the lower decks to keep them dry.

The Medical Corps of the United States Navy is a staff corps consisting of military physicians in a variety of specialties. It is the senior corps among all staff corps, second in precedence only to line officers. The corps of commissioned officers was founded on

March 3, 1871.

Prior to the formal establishment of the corps, ships' surgeons served without commissions, unless given one by the commanding officer. Those commissions would be for the duration of a specific cruise.

However, facing a shortage of trained physicians to serve the needs of the Navy and Marine Corps, the Uniformed Services Health Professions Revitalization Act of 1972 was passed. This was a two-pronged act in which the Uniformed Services University of the Health Sciences and the Health Professions Scholarship Program were created. In both programs, civilians are given a direct commission to the rank of Ensign (O-1) in the United States Navy Reserve which they hold throughout the four years of their medical education. During this time they receive financial assistance on the condition that they meet reservist requirements, maintain military standards, and agree to serve on active duty as physicians. The commitment required is at least 4 years for HPSP and 7 years of service for USUHS students.

Upon graduation, the new physicians are promoted to the rank of Lieutenant (O-3) and enter active duty as medical interns (PGY-1) at a Naval Hospital.

Upon completion of an internship year, a Navy physician usually is deployed to the fleet as a General Medical Officer, though opportunities also exist to complete full-residency training in the specialty of their choice or undergo 6 months of training to become a Flight Surgeon or Undersea Medical Officer.

As of November 2014, VADM Matthew L. Nathan is the 37th Surgeon General of the United States Navy and is the highest-ranking officer of the Medical Corps. The Chief of the Medical Corps is RADM Raquel Bono.

Members of the Medical Corps are eligible to pursue

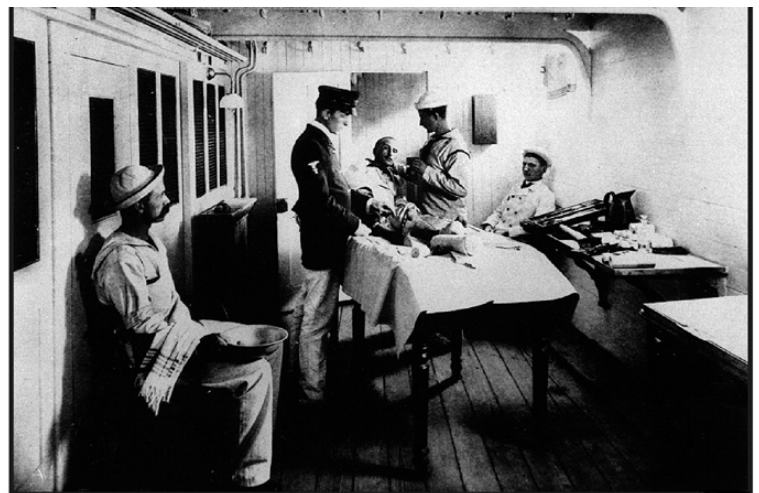
qualification programs that lead to breast insignia such as:
 Flight Surgeon Insignia (USA, USN, USAF)
 Surface Warfare Medical Corps Insignia
 Submarine Medical Insignia
 Diving (Medical) Insignia
 Fleet Marine Force Insignia

A Hospital Corpsman (HM) is an enlisted medical specialist of the United States Navy who serves with the U.S. Navy and the United States Marine Corps.

The hospital corpsman works in a wide variety of capacities and locations, including shore establishments such as naval hospitals and clinics, aboard ships, and as well as the primary medical caregivers for sailors while underway. Hospital corpsmen are frequently the only medical caregiver available in many fleet or Marine units on extended deployment. In addition, hospital corpsmen perform duties as assistants in the prevention and treatment of disease and injury and assist health care professionals in providing medical care to sailors and their families.

They may function as clinical or specialty technicians, medical administrative personnel and health care providers at medical treatment facilities. They also serve as battlefield corpsmen with the Marine Corps, rendering emergency medical treatment to include initial treatment in a combat environment. Qualified hospital corpsmen may be assigned the responsibility of independent duty aboard ships and submarines; Fleet Marine Force, SEAL and Seabee units, and at isolated duty stations where no medical officer is available.

Hospital corpsmen were previously trained at Naval Hospital Corps School, Great Lakes, Illinois until the 2011 Base Realignment and Closure Bill caused Hospital Corps School to be relocated to the Medical Education and Training Campus (METC) at Joint Base San Antonio, Texas. Naval Hospital Corps School was also located at NRMCMC Balboa in San Diego, CA. Many graduates went directly from the 24 week training to 8404 schooling at



Treating a sailor aboard ship in 1890s.



Hospital Apprentice aboard ship in WW I.

Camp Pendleton and deployment to Vietnam. As of 28 July 2011, Naval Hospital Corps School, Great Lakes, Illinois has been officially closed and operations moved to San Antonio, Texas.

The colloquial form of address for a hospital corpsman is “Doc”. In the United States Marine Corps, this term is generally used as a sign of respect.

Prior to the establishment of the Hospital Corps, enlisted medical support in the Navy was limited in scope. In the Continental Navy and the early U.S. Navy, medical assistants were assigned at random out of the ship’s company. Their primary duties were to keep the irons hot and buckets of sand at the ready for the operating area. It was commonplace during battle for the surgeons to conduct amputations and irons were used to close lacerations and wounds. Sand was used to keep the surgeon from slipping on the bloody ship deck. Previously, corpsman were commonly referred to as a loblolly boy, a term borrowed from the British Royal Navy, and a reference to the daily ration of porridge fed to the sick. The nickname was in common use for so many years that it was finally officially recognized by the Navy Regulations of 1814. In coming decades, the title of the enlisted medical assistant would change several times—from loblolly boy, to nurse (1861), and finally to bayman (1876). A senior enlisted medical rate, surgeon’s steward, was introduced in 1841 and remained through the Civil War. Following the war, the title surgeon’s steward was abolished in favor of apothecary, a position requiring completion of a course in pharmacy.

Still, there existed pressure to reform the enlisted component of the Navy’s medical department—medicine as a science was advancing rapidly, foreign navies had begun training medically skilled sailors, and even the U.S. Army had established an enlisted Hospital Corps in 1887. Navy Surgeon General J.R. Tyron and subordinate physicians lobbied the Navy administration to take action. With the Spanish–American War looming, Congress passed a

bill authorizing establishment of the U.S. Navy Hospital Corps, signed into law by President William McKinley on 17 June 1898. Three rates were created therein—hospital apprentice, hospital apprentice first class (a petty officer third class), and hospital steward, which was a chief petty officer.

A revision in 1916 established a new rate structure. With the introduction of a second junior rate there were now hospital apprentice second class (HA2c) and hospital apprentice first class (HA1c). The rating title for petty officers was established as pharmacist’s mate (PhM), following the pattern of some of the Navy’s other ratings (boatswain’s mate, gunner’s mate, etc.). Pharmacist’s mate third class (PhM3c), second class (PhM2c), and first class (PhM1c) were now the petty officers, and chief pharmacist’s mate (CPhM) was the CPO. This structure that would remain in place until 1947.

During World War I, hospital corpsmen served throughout the fleet, earning particular distinction on the Western Front with the Marine Corps. A total of 684 personal awards were awarded to hospital corpsmen in the war, including 22 Medals of Honor, 55 Navy Crosses, and 237 Silver Stars.

In World War II, hospital corpsmen hit the beach with Marines in every battle in the Pacific. Joe Rosenthal’s Pulitzer Prize winning photo of the flag-raising on Iwo Jima, taken on the fifth day of that battle, depicts Pharmacist’s Mate Second Class John Bradley among the group of Marines on Mt. Suribachi that day. They also served on thousands of ships and submarines. Notably, three unassisted emergency appendectomies were performed by hospital corpsmen serving undersea and beyond hope of medical evacuation. The Hospital Corps has the distinction of being the only corps in the U.S. Navy to be singled out in a famous speech by Secretary of the Navy James Forrestal after the conclusion of the war. Following the war, the Hospital Corps changed its rating title to the generic term it had used all along—hospital corpsman. The rates of hospital corpsman third class (HM3), second class (HM2), and first class (HM1), and chief hospital corpsman (HMC) were supplemented by senior chief hospital corpsman (HMCS) and master chief hospital corpsman (HMCM) in 1958.

Hospital corpsmen continued to serve at sea and ashore, and accompanied Marine units into battle during the Korean and Vietnam wars. Fifteen hospital corpsmen were counted among the dead following the bombing of the Marine barracks in Beirut in 1983. Hospital corpsmen also served in the Iraq and Afghanistan wars providing corpsmen for convoys, patrols, and hospital or clinic treatment.



Prospective Hospital Corpsman entering basic training.

Prior to selection to the command master chief program, the 11th MCPON, Joe R. Campa, was a hospital corpsman.

Because of the need for hospital corpsmen in a vast array of foreign, domestic, and shipboard duty stations, as well as with United States

Marine Corps units, the Hospital Corps is the largest occupational rating (Navy Enlisted Classification-HM) in the United States Navy, with about 25,000 members active duty and reserve.

The basic training for hospital corpsmen is conducted at the Medical Education and Training Campus, located at the Joint Base, Ft. Sam Houston, TX. Originally located at Great Lakes IL. one of the Navy's "A" schools (primary rating training). Upon graduation, the hospital corpsman is given the Navy Enlisted Classification (NEC) code of HM-0000, or "quad-zero" in common usage. NECs are not as analogous to MOS in the United States Army and Marine Corps, or AFSC in the Air Force as the rate in the Navy. There are primary NECs, and secondary NECs. For example, a hospital corpsman who completes Field Medical Training Battalion (FMTB) and earns the NEC HM-8404, moves that NEC to primary and has a secondary NEC of HM-0000. If that hospital corpsman attends a "C" School, then the NEC earned at the "C" School becomes their primary and HM-8404 becomes the secondary. Some hospital corpsmen go on to receive more specialized training in roles such as medical laboratory technician, radiology technician, aerospace medicine specialist, pharmacy technician, operating room technician, etc. This advanced education is done through "C" schools, which confer additional NECs. Additionally, hospital corpsmen (E-5 and above) may attend independent duty corpsman training, qualifying for independent duty in surface ships and submarines, with diving teams, and Fleet Marine Force Recon teams, as well as at remote shore installations. In addition to advanced medical training, these Hospital Corpsmen receive qualification in sanitation and public health.

Of note is the Field Medical Training Battalion (FMTB), with locations at Camp Del Mar and Camp Johnson, where sailors bound for service with USMC operating forces earn the NEC HM-8404, Field Medical Service

Technician. FMTB provides specialized training in advanced emergency medicine and the fundamentals of Marine Corps life, while emphasizing physical conditioning, small arms familiarity, and basic battlefield tactics. As of 2010, this rigorous training is 8 weeks. Training for the Fleet Marine Force (FMF) familiarizes navy corpsmen with the Marines. A bond and mutual respect is often formed between Marines and their assigned hospital corpsmen, earning respect apart from their Navy shipmates. FMF hospital corpsmen are issued and wear the uniforms of the Marine Corps (MARPAT) while on duty with the Marine Corps and also have the option to go Marine Corps Regulations. They are then issued a new seabag with USMC uniforms, excluding the dress blues, and wear those instead of traditional Navy uniforms. The Navy's



Modern Navy medical care includes all aspects of medical science.

new digitized camouflage working uniform are worn by sailors stationed at other naval facilities.

Hospital corpsmen can further specialize; they may undergo further training to become Special Amphibious Reconnaissance Corpsman, or SARC. They are usually found in both the FMF Recon, Marine Division Recon and MARSOC units. They are trained and skilled in combat, including combatant swimming, opened/closed circuit scuba diving, military free-fall and amphibious operations. They act as advisers regarding health and injury prevention, and treat illnesses from decompression sickness as well as other conditions requiring hyperbaric treatment.

Hospital corpsmen who have received the warfare designator of enlisted fleet marine force warfare specialist are highly trained members of the Hospital Corps who specialize in all aspects of working with the United States Marine Corps operating forces. Attainment of this designation is highly prized among all corpsmen. The enlisted fleet marine force warfare designation for hospital corpsmen is the only US Navy warfare device awarded solely by a US Marine Corps general officer. This awarding authority cannot be delegated to US Navy officers. However, obtaining the title of "FMF" is a rigorous procedure and

not every hospital corpsman who has been with a Marine Corps unit will wear the FMF warfare device. U.S. Navy officers in the medical community (Medical Corps (doctor), Nurse Corps, Dental Corps, Medical Service Corps) can earn and wear the officer equivalent to this insignia. Additionally any sailor attached to a USMC unit can earn and wear an FMF warfare device. (e.g., administrative rates such as logistic specialists) provided they complete all the qualifications for the FMF warfare specialist.

The first physician assistants were selected from Navy corpsmen who had combat experience in Vietnam. The Navy trained its own physician assistants drawing from the ranks of qualified independent duty hospital corpsmen at the Naval School of Health Sciences in Portsmouth, VA until 1985, then at San Diego, CA and current the Interservice Physician's Assistant Program (IPAP) with a university affiliation of the University of Nebraska Medical Center (UNMC). It is conducted in two phases the first phase at the Graduate School and Academy of Health Sciences at AMEDDC&S, Ft. Sam Houston, TX and the second phase at various medical facilities and specialties. When training completed they become officers in the Medical Service Corps (MSC). Former Navy hospital corpsmen are also represented in many medical disciplines, as physicians, nurses, medical administrators and other walks of life.

After completing their training, a physician assistant is promoted to the rank of lieutenant junior grade (O-2). Whether they are assigned to hospital ships, reservist installations, recruiter offices, or Marine Corps combat units, the rating of hospital corpsman is the most decorated in the United States Navy with 22 Medals of Honor, 174 Navy Crosses, 31 Navy Distinguished Service Medals, 946



Today's Corpsmen can be found aboard ship, at naval facilities and with the Fleet Marine Forces.

Silver Stars, and 1,582 Bronze Stars.[4] Twenty naval ships have been named after hospital corpsmen.

At right, sick bay aboard USS Iowa.



Turbinia's Magnificent Review

As it's creator, Charles Parsons saw it, his invention of the steam turbine had direct application to marine propulsion and electrical generation. Both of these require high efficiency and have steady loads. Marine propulsion had the added benefit of requiring smooth operation and a high power density engine. Parsons left Cambridge and established the Parsons Works in Newcastle-upon-Tyne. His first company was established to produce a commercial steam turbine. The risk was formidable, turbines require exacting tolerances on the dimensions. The vane profiles in the turbines were completely new and were very complex shapes to manufacture, even by modern standards. Everything in the design was new and had to be invented. On top of this



Parsons aboard the Turbinia. Note the stoker feeding the boiler.

was trying to maintain financing for the company.

By 1892 the power of his turbines had increased from the very first prototype of 4 KW in 1885 to a respectable 100 KW. But there were still no buyers and no market. By now his engines were powerful enough to power small boats. He decided to build a boat that would demonstrate the potential of his machine. In 1894 Parsons took out patent No. 394 for 'Propelling a vessel by means of a steam turbine, which turbine actuates the propeller or paddle shaft directly or through gearing'. The steam turbine blasted jets of high-pressure steam against blades inside a wheel, producing a continuous rotational motion instead of the push-pull action of previous steam engines. The same year saw the formation of the Steam Turbine Company, the prospectus of which stated that:

'The objective of this company is to provide the neces-



Turbinia

sary capital for efficiently and thoroughly testing the application of Mr. Parsons well known Steam Turbine to the propulsion of vessels. If successful, it is believed that the new system will revolutionize the present method of utilizing steam as a motive power, and also that it will enable much higher rate of speed to be attained than has hitherto been possible with the fastest vessel.'

In pursuance of this objective, after experiments with model boats, the company constructed Turbinia. Built of steel, she was 100 ft long, 9 ft broad and with a draught of 3 ft had a displacement of 44.5 tons. She was fitted with a double-ended water tube boiler working at 210 psi. The first set of machinery consisted of a single radial flow turbine driving a single shaft, which at 2400 rpm developed 960 horse-power. The speed of the boat proved to be much less than hoped for. The highest speed recorded was less than 20 knots. The complication was due to the high rotational speeds of the propellers which caused the phenomenon of cavitation to occur. Like the Wright brothers developing the airplane a few years later, the turbine design was pushing many technological limitations simultaneously.



Turbinia's engine

Parsons had to remedy this problem also. Cavitation was a phenomenon recognized and named by William Froude.



Turbinia races among fleet units at Spithead Naval Review.

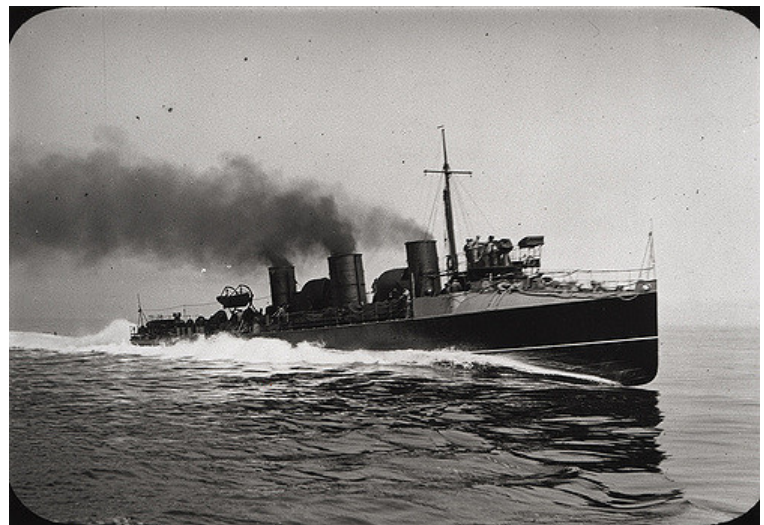
The propellers were spinning at 18,000 rpm, so fast that the water pressure decreased, forming bubbles, a cavity. The power was going into making bubbles instead of pushing the boat.

The remedy was to operate at lower rpm with more turbines and propellers. The radial flow turbine was replaced by 3 parallel flow turbines, one high, one intermediate and one low pressure, to reuse the same steam in succession, each driving a separate shaft having 3 triple bladed screws, there being 9 propellers in all. With steam at 157 psi the speed of the central shaft was 2000 rpm and 2230 on the wing shafts. On trial with this new configuration a speed of 34.5 knots was obtained, or about 4 knots more than the fastest destroyers afloat. The results were spectacular, but still nobody was listening.

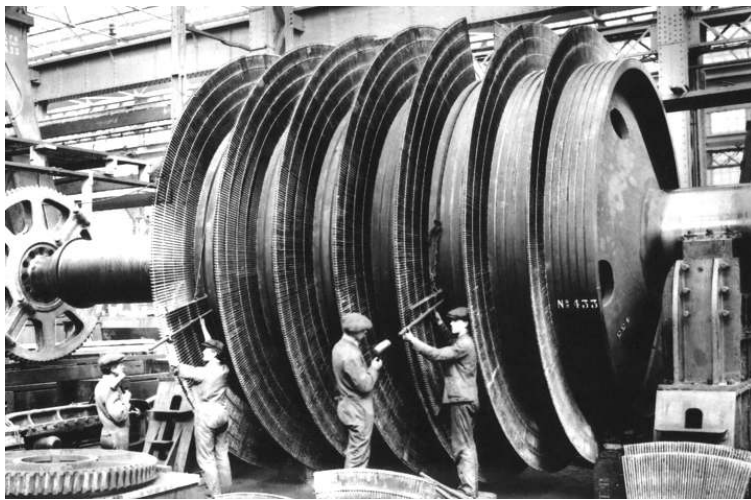
The trials of Turbinia were conducted off the North East Coast but her debut before the world was made in a daring way on an occasion of pomp and circumstance, and amidst surroundings fitting in every respect for the appearance of a vessel which was to usher in a new era in ship propulsion. To mark the 60th anniversary of the accession of Queen Victoria a grand Naval Review was held at Spithead. Where on June 26th 1897, was gathered the greatest armada the world had ever seen. No fewer than 165 ships flying the White Ensign were present. There were battleships of the Majestic and Royal Sovereign Class, the Cruisers Terrible and Powerful, Blake and Blenheim, the old Ironclads Devastation and Thunderer, many light cruisers, gunboats, 27 and 30 knot destroyers and at one end of the line 6 sailing brigs, the last remnants of the age of masts and yards. The entire fleet was manned by over 38,000 officers and men. It was on this occasion that Turbinia after permission had been obtained, was to steam up and down the lines and astonish everyone by her per-

formance. . Along with the Queen was the Prince of Wales and Prince Henry of Prussia, the Kaiser's brother were also present. Charles Parsons had once written, "If you believe in a principle, never damage it with a poor impression. You must go all the way." Just as the review began, as Prince Edward appeared, and the bands struck up the national anthem, Turbinia dashed out from her position and into the passing review. The sudden, dramatic, appearance and sped past the line of ships made spectators shouted aloud in amazement. The authorities became alarmed and sent out a picket boat to stop Turbinia but, as she was going so much faster, the wash she created nearly sank the pursuing navy vessel. Before any further disciplinary action could be taken, however, Prince Henry of Prussia sent Parsons his congratulations and asked for a return. Turbinia had triumphed!

It was a magnificent spectacle and a great lesson in the progress of naval construction and engineering. With the exception of the brigs every vessel at anchor was fitted with reciprocating engines, but when, 17 years later in July



HMS Viper (RN)



Parsons turbine being installed aboard RMS Britannic.

1914, the last pre-war review was held, all the most important ships present were driven by steam turbines in a similar manner to the little Turbinia.

The world could no longer afford to ignore the turbine. Its power had been unleashed. The Royal Navy authorities immediately realized the great advantages of steam turbines and after negotiations an order was obtained from the admiralty for a turbine driven destroyer in 1898 - HMS Viper. Parsons's investment of 24,000 pounds to get to this point had paid off. On a massive scale, turbines were adopted for Navy ships and the large ocean liners. By 1904, 26 ships had been engineer by parsons direct drive turbines. Famous ships like the Mauretania, Titanic and HMS Dreadnought were all powered by Parsons turbines. Electric power generation on land also almost exclusively adopted steam driven turbine generators. In 1909 it was shown that geared turbines, that is reducing the high turbine speed to a more usable shaft speed by means of gears, gave a significant saving in coal consumption of about 15%. In 1912 Parsons wrote to Lord Fisher stating 'I have come to the conclusion that gearing between engines and screw shafting will be essential.' As a result the destroyers HMSs Badger and Beaver with partial gearing (1911) and HMSs Leonidas and Lucifer with fully single reduction gearing (1913) were produced.



HMS Dreadnought (RN)

Letter from the Editor

I hope you all are enjoying the stories from this issue. I am now doing both this newsletter and the Iowa Veterans Association newsletter. I may occasionally share some of the stories of interest.

I hope you will consider coming to the Iowa Reunion in August. It should be a fun event and a chance to rekindle acquaintances. The next issue will have a little humor as I include some of my own experiences and "sea stories."

If you have anything you would like to share with our shipmates and friends, please send it in. It may take some time to get it in the newsletter, but we'll get it in for all to see.

Send your works to:

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See you at the Crown Plaza, Warwick in August!