



# San Diego Ship Modelers' Guild

P.O. BOX 6725, SAN DIEGO, CA. 92106

VOLUME 10 NUMBER 11

NOVEMBER 1986

# NOMINATIONS

The year went by quickly and it is again time to nominate members for the Guild offices. Don't let this scare you away from the meeting...we realize "serving as a club officer is not everyones cup of tea." (Bill Barker said that). I feel that the success of any group depends upon active participation from all its' members. Lets commit ourselves if we can. Maybe this months cartoon will help you make up your mind ?

DECEMBER						
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14	15	16	17	18	19	20
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28	29	30	31			

The next issue will contain a ballot which can be sent to the above address or turned in to the logkeeper when you have made your choice for the 1987 Guild staff. Your ballot will be exceptable any time enclunding the January meeting. Hope you will be there as we'll need all the fingers we can get in order to tabulate the votes.

TIME TO RENEW YOUR GUILD MEMBERSHIP...This months edition encludes a short form for renewing your membership in the guild. Our inital form scared some people off as it resembled an I R S form. If you chose to rejoin (and we hope you will) be sure to state your city and zip code as well as any telephone number change if any.

1986 has been a big year for the guild as we saw a whopping 108 members in our ranks. Things are looking even better as we help get the museums' boat model shop off the ground...or water as the case my be. Hope to see you all back for 1987.

Sorry about the errors in last month newsletter...I started about 3 hours before the printer closed on Friday. The newsletter is given out on the Sat. prior to the meeting week...this saves on stamps as a good number of you are at the pond. In the future I will proof read before I place the stamps on your issue.

A lot of interest was shown in the SCALE WOODCRAFT magazines at the last meeting. I hope those of you who took the subscription forms will enjoy the magazines as much as I do.

SAN DIEGO MARITIME MUSEUM  
ANNUAL MEMBERS MEETING

Next Program: 1986 TITANIC Exploration  
January 28, 1987

LIBRARY USED BOOK SALE - Nov. 29 - 9 to 3

SHOW & TELL

by Nilson



"EVERYBODY'S RUNNING FOR OFFICE THIS YEAR."

NEXT MEETING:

Want to talk about planking a wooden tug...if time allows I would like to show my tug "Taurus" 36" length. It's built 4 times larger than Model Shipways Kit for an HO guage water line model. Be ready to ask and answer questions as many need information on this subject. The two books below would be starters and are available from Model Ship Builder, P.O. Box 128 Cedarburg, WI. 53012. I'll bring my copy of SCALE MODEL SAILING SHIPS for those interested.

**SCALE MODEL SAILING SHIPS**

**Edited by John Bowen.** Concentrates on three types of ships: the galleon, clipper and fore & aft rigged coaster. Discusses plank-on-frame, working on types and miniatures. Enhanced by photographs of each modeler's type work. Starting a model, hulls and decks, masting and rigging, making flags and a glossary of terms. 192 pages, 8 1/4 x 10 1/4.  
No. 018 ..... \$12.95

**PLANK-ON-FRAME MODELS  
Volume I**

**By Harold A. Underhill.** This book is founded on the experience of some fifty years of spare-time model building, and takes the reader right through its subject from the reading and interpretation of plans to mounting the finished model on its base. It is a book, which will raise the standard of the modeling of wooden ships. 28 illustrations, 95 sketches, 7 plates of plans, 170 pages, 7 1/4 x 9 3/4.  
No. 158 ..... \$24.50

Bill Paylor informs us that George Barber of Marine Photos and Publications will be at our next meeting. Bill recently discovered him as an excellent resource of photos of ships for modeling purposes.

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**LOG OF THE OCTOBER MEETING**

Master McFarland called the meeting to order with 34 present. Among our first timers welcomed were Gaetano "Tom" Avila, Jon Hedberg, Matt Eoff, Gary Gorrell, and Bill Carrington.

**OLD BUSINESS:** Copies of a corrected schematic for a speed control were passed out to those interested. Additional copies are available from the logkeeper.

**NEW BUSINESS:** Announcements for reduced rates to MODEL SHIP BUILDER for club members only. These are for NEW subscribers and renewals due before the March/April issue not already renewed. Sign-up through Bill Kelly-Fleming (see announcement elsewhere in this issue. -ed.).

Pete Peters of the model railroad club spoke to us on the desire for waterline models of San Diego vessels for their 'N' scale layout. These should be about 1:160 or 1/16"=1' scale, of about 24" in length. Especially appreciated would be a STAR OF INDIA, a coastal freighter, ferry boat, etc., of any period 1930 to present. Suggestions from the RR people were for a container ship or coastal tanker, two types rarely, if ever seen here. (Logkeeper's note: We do load copper concentrate and bulk load grain from rail head piers.) Anyone interested in joining this project should contact Pete Peters at 483-3807. (Also let the Master of Mate know please!)

Bob Crawford gave an update on the Museum model shop. The museum is looking to possibly sponsor an extended show --not a contest. It might be part of the celebration in 1987 of the STAR's 60th year in San Diego. Initial response form the members was very favorable. Members are asked to bring ideas for a counter proposal to the November meeting. Bob also reported continuing developments in involving modelers at the museum. The Saturday afternoons following the Guild meeting will see Bob at the museum to allow members to use the shop tools. He is also working on getting the library open on that Saturday for research by modelers.

**REPORTS:** Chuck Hill reported on lab tests done on line from a Sergal kit-- it is linen, unbleached!

Bill Kelly-Fleming reported on a recent trip to the port chaplains' conference in Green Bay and another trip to Boston. Highlights included shipbuilding near Green Bay, a visit to the collection of ship models at Chicago's Museum of Science and Industry, and a report on the October meeting of the U.S.S. CONSTITUTION Model Shipwright Guild. Bill took greeting tfrom our Guild to CMSG and was warmly received by the fellows in Boston. Bill also gave a briefing on shipping and cruise ships in San Diego.



BY BILL KELLY-FLEMING

OK Roy, no more dictating to you over the phone after last issue! If I were really aloft and you on deck we'd end up ship wrecked for sure.

First of all, to clear up any speculations and subsequent rumors, I will not be packing my sea chest and heading off for another port. It was very close, but I did not get the job it looked like I might get. So you guys are still stuck with me.

When I was in Chicago for a few hours recently, I stopped by the Museum of Science and Industry, which still had no admission charge. There are some fine models in their collection, but the most impressive is a superb scratch built model of the PRINCE DE NEUFCHATEL.

Among the things shared at the U.S.S. CONSTITUTION Model Shipwright Guild were three books on sailing principles for square-riggers:

- Villars: THE WAY OF A SHIP
- Naval Institute Press: EAGLE SEAMANSHIP
- Naval Institute Press: SEAMANSHIP

I've heard excellent reports on the NRG meeting in Boston. Videotapes were made of the tech sessions and may be made available at a later date. Over 200 people attended the sessions.

Those of you interested in nautical artifacts, beware of buying apparently authentic scrimshaw. There is a rash of fake scrimshaw on a hard plastic rather than ivory. It has been at some arts and crafts shows and swap meets. Genuine scrimshaw is very hard to come by, so buyer beware.

In a recent visit with the crew of the CALIFORNIAN, I learned that a Bluejacket kit of the JEFFERSON DAVIS was recently built and modified into a CALIFORNIAN for the museum at Dana Point, with fairly good success. I was able to take a group of the cadets on a tour of the museum. The models on the BERKELEY as well as the STAR OF INDIA herself became instant learning tools on rigging and on sailing vessel classifications.

NASSCO now has all four of its big ships in the water with the tanker EXXON LONG BEACH being quietly launched on Friday, November 7.

While no ice appeared in the bay, we once again had an icebreaker around for a few weeks. The oldest of our icebreakers, the GLACIER was undergoing training exercises before heading to Antartica via the East Coast of South America.

For the first time since the bridge opened in 1969 a vessel will be carrying passengers for hire between San Diego and Coronado. On Saturday, November 15, the SILVERGATE will wave a ceremonial debut of upcoming ferry service from the Harbor Excursion docks. The SILVERGATE was launched by Star & Crescent in 1940. Designed by O.J. Hull, Sr., she has been a race committee boat, a glass bottom transport to Coronado Islands, a ferry to Avalon from San Pedro, the first San Diego whale watching boat, and recently as a harbor tour boat. I have been asked to look into building a model of her.

Late news update.....Bob and Joan Wormald (our Canadian members) will be in the area about Dec 15 on the way to their annual stay in Imperial Valley.

Just received a note from Fred, Sadie and David DeWolfe (West Coast Model Boat Club) Burnaby B.C. who will be in on Nov. 13. They set up camp over at De Anza Harbor resort and enjoy the sea breeze and sun shine. Dave is head of that boat club. They were all heavily involved in the Model Boat part of EXPO 86.

My Scale Woodcraft issue Autumn 1986 just arrived with a story on CHEMICAL MILLING...better known as brass etching. Materials, films, chemicals, exposer times and precautions all well explained by Wayne Wesolowski, a well known model railroad builder-writer. Don't miss it.

SHOW AND TELL:

Bill Paylor - Frigate U.S.S. UNITED STATES - 1:96 plastic model from the Revell kit. Recently finished after 18 months of construction. "It wasn't easy but was a lot of fun. There was not enough information in the instructions."

Dan Lepage -ATF (tug) MOCTOBI in 1:96 scale from a Warsship hulls fiberglass hull. He

is only about 10% done, but gave an excellent commentary on the procedures he is using to construct the model.

-Tug "CAROL ANN" in 1:96 from a kit for R/C. It is named for his wife "who just won't quit" although suffering from a progressive disabling disease --a fitting inspiration.

Doug McFarland -fictional 20 gun Sloop of War HOTSPUR, 1:60 scale POF from a kit. Now about 80% complete. He is working on the yards now with footropes and stuns'l booms rigged on foremast yards.

Roy Nilson -Examples of FINE SCALE MODELER and SCALE WOODCRAFT magazines

Mike Pettit donated three catalogs for our files:

-RAM Electronic Devices for R/C models.

-Midwest Products model boats

-a miniture collectable of artillery pieces in pewter from the Anglo-American historical Society.

Finally, the announced swap meet was a flop with only a tug boat model being sold!

-Bill Kelly-Fleming, Logkeeper

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FROM THE MAILBAG: and in the files at the model shop

-New HOBBY SHACK catalog and a sale flyer from the DROMEDARY.

-From SMA in Fullerton, a list of linen rigging line sizes commercially available.

-From Maritime Modelers comes two announcements:

1. An R/C model display at the San Pedro Maritime Museum on November 22-23

2. PARADE OF LIGHTS on Saturday Dec. 6, at 5:30 pm in Heritage Park in Cerritos, CA.

-Mystic Maritime Gallery has written soliciting "respectable, well built kits" and "refined scratch -built models" for consignment to sell. BK-F has details for those interested.

-MARITIME MUSEUM LIBRARY USED BOOK SALE - NOV. 29. 0900-1500hrs

# A SPECIAL DEAL ON **MODEL SHIP BUILDER** AVAILABLE ONLY TO SHIP MODELING CLUBS

This offer is only good through a club and all subscriptions must be paid with one club check. Subscriptions begin with the January/February 1987 issue. The LAST DAY to place an order is at our November 21 meeting of the Guild. Sign up with Bill Kelly-Fleming,

**\$1, \$2, or \$3 off a one year subscription  
to MSB for being a modeling club member.**

# Star of India Maritime Museum Association of San Diego

November 1986

Gentlemen

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*Capt. USCG, Ret.*


The 1987 tax law changes are on many of your minds, as they are on ours. We are not yet aware of all the implications of these new laws, but we wish to assure you that any donation to the Association now or in the future is tax deductible and very much appreciated.

Bill Benson had talked to some of you about donations to the Museum model collection before his death this past spring. There are at present no records of planned giving and if any of you have intentions of donating your models, we would greatly appreciate hearing from you.

Under present law, a modeler is entitled to write off only the amount of materials as being tax deductible. To circumvent this we have a planned giving program wherein a model is "loaned" to the Museum and upon the model builder's demise, the estate donates the item for a full deduction. This allows the modeler the pleasure of seeing his model become a valuable part of the Museum and retain for his heirs the ability to write off the true value of the item.

There are modelers among you that we value very highly and would like the opportunity to talk to you about models becoming a permanent part of our Museum to both our mutual benefit. To assist us in this program would you please contact Bob Crawford at the Museum for an appointment. In any event, we will keep you informed on any changes to the law.

Thank you.

  
BOB CRAWFORD  
Curator of Models

HISTORY AFLOAT

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# Electroplating

By L. C. Longley

in the workshop— An introduction to this

method of adding to the appearance of metalwork and a few formulas for baths

IN THE FIELD of model making the electro-deposition of metals will provide an authentic or decorative finish on bare metal parts that is unobtainable by any other means. In my own models I have mainly used plating to cover soldered joints that would otherwise be visible and mar the appearance of the finished part.

Some of my model cars are completely gold plated and they make a much admired appearance whenever on show. There will no doubt be many applications that the individual modeller will find to fit his specific needs and do not be surprised if the feminine members of the household show a sudden new interest in your hobby by providing an endless array of knick-knacks for your plating bath.

## An involved study

Electro-deposition is a very involved study requiring accurate control of electric current and a constant analysis of the electrolyte being used. I intend only to cover the main aspects and reduce them to a practical working basis. I would point out to readers who are interested in plating that much experimentation is required and so I will devote more space to the pitfalls, their causes and remedies.

The chemical theories and throwing properties of electrolyte, electro-cleaning and polishing and current control all have a bearing on the quality of the finished work but I will confine myself to the main points of plating, thus enabling the amateur to produce immediate results. The electrical and chemical theories will be left to the many

excellent text books available on the subject.

## The theory

Water itself consists of positive and negative ions and when two metal plates are connected to a d.c. supply the positive, or anode, will attract negative ions while the negative, or cathode, will attract positive ions. The d.c. supply can be provided either by a battery or a step-down transformer and full wave rectifier. Acids, alkalis or salts when dissolved in water are also broken up into ions, all metals carry a positive charge and therefore deposit on the cathode which is, in the case of the model engineer, the job.

Anodes usually consist of the metal to be deposited and replace metal removed from the electrolyte during the action of plating. In some cases a dissimilar metal is used for the anode, usually for economical reasons as in gold plating, and as no metal is being replaced, the plating bath will eventually exhaust itself when all the metal has been extracted.

## Cleaning the surfaces

The preparation of the surfaces of the work to be plated is an important stage. Perfect cleaning is the basis of successful electro-deposition; dirt or grease on the surface of the article leads to blistering of the plate. Any imperfections or scratches in the metal will still be apparent after plating and the finished article will never possess a greater lustre than initially applied; an extra high polish is obtained by re-buffing after plating.

An exaggerated build-up of metal

on corners or small protrusions (e.g. rivet details) can be considerably reduced and a more even plate obtained by occasionally reversing the current so that the work (the cathode) becomes anodic and a deplating action takes place. A fast build-up of metal that is apparent over the entire job can usually be attributed to excessive current; the solution is either to reduce the current or increase the distance between anode and cathode.

## The right vessel

To hold the electrolyte, glass or other non-conductive vessels, such as rectangular fish aquariums, are ideal. The busbars for suspending the work can be brass rods which should be kept free from the verdigris that is bound to form.

So much for how it works, now for some formulas. One can gather a formidable, and often mysterious, array of chemicals used for plating, so to avoid confusion, and expense, my emphasis is once again on simplicity.

## Acid bath

A copper acid bath solution is made up of 30 oz. copper sulphate, 5 fl. oz. sulphuric acid and up to 1 gal. of distilled water. The current should be 10-15 amps at two volts, per sq. ft. electrode distance 5 in. The anode is copper. The temperature should be 65 deg. Fahr. Copper acid solutions are best for building up heavy deposits. Pure copper anodes, at least the same area as the job, should be used.

A cyanide solution is essential for plating directly on iron or steel. Parts which require to be only

partially plated in a cyanide copper bath can be marked off with a paste of whitewash which is on sufficiently thick to completely cover those parts that do not require plating. Articles that will subsequently receive a deposit of another metal are flashed for a few minutes, washed in water and immediately transferred to the final plating bath. A cyanide bath is made up of 4 oz. copper cyanide, 5½ oz. of sodium cyanide, 3 oz. sodium carbonate and 1 gal. distilled water. The anode should be of pure copper and the temperature kept at 100 deg. Fahr. The e.m.f. should be six volts.

## Gold plating

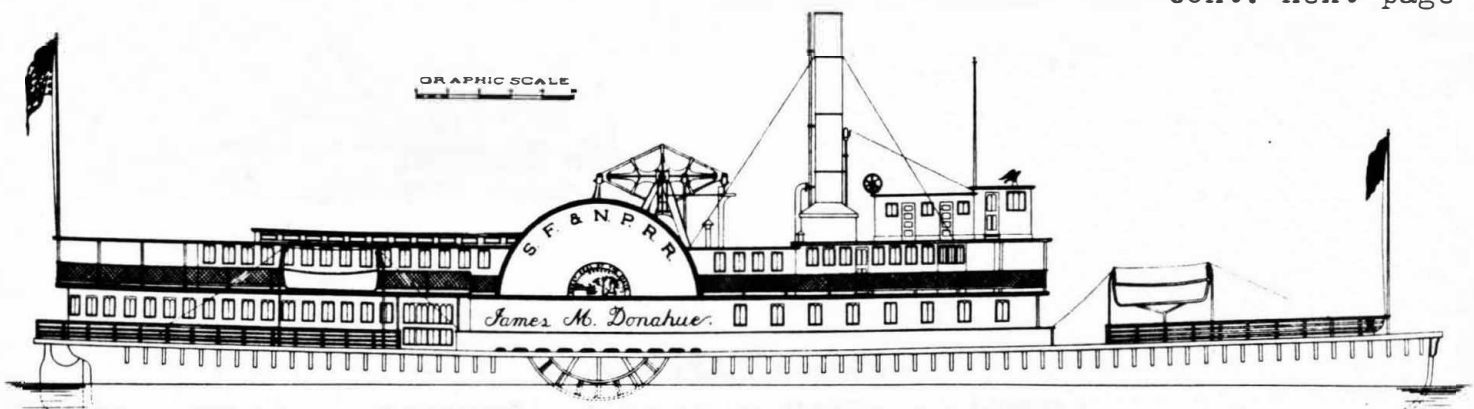
A 24 carat gold bath is composed of 1 oz. sodium cyanide, ½ oz. sodium gold cyanide, 2 oz. disodium phosphate and 1 gal. of distilled water. The current should be from one to five amps at three to six volts per sq. ft. and the temperature kept between 140-160 deg. Fahr. The anode should be stainless steel. For a deeper gold tone ¼ oz. sodium ferrocyanide should be added.

## Lesser carats solution

A 14 carat gold bath is composed of 2 oz. of sodium cyanide, ½ oz. of sodium gold cyanide, ¼ oz. of nickel cyanide and a ¼ oz. of copper cyanide; 1 gal. of distilled water is needed. All other details are "the mixture as before."

To conserve the plating solution, first immerse the article, connected to the negative side of the d.c. supply then, when all is ready, include the anode and agitate the plating solution slightly, a good deposit should be obtained within five to 10 seconds. Portions of the job that do not require plating can be marked off with lacquer. A simple gold colouring without electric current, which should be lacquered immediately to prevent fading, can be obtained by using

cont. next page



SINGLE-END WOODEN FERRYBOAT 'JAMES M. DONAHUE' OF THE  
SAN FRANCISCO & NORTH PACIFIC RAILROAD - BUILT 1875

the following formula: sodium cyanide 3 oz., sodium gold cyanide ½ oz., caustic potash 2 oz., sodium bisulphate 2 oz., and 1 gal. of water at a temperature of 180 deg. Fahr. A nickel bath should be made up as follows: nickel sulphate 40 oz., nickel chloride 6 oz., boric acid ½ oz., and up to 1 gal. of distilled water. The current should be 40 amps at six volts per sq. ft. For a silver strike bath, the formula is as follows: silver cyanide ½ oz. troy, sodium cyanide 10 oz. avoirdupois and 1 gal. distilled water. The current 10-20 amps at three to six volts per sq. ft. The temperature should be 78 deg. Fahr. and the anode of silver or stainless steel.

The articles should be placed in strike bath for a few seconds before plating in the regular bath which is made up thus: silver cyanide 3½ oz. troy, potassium cyanide 5½ oz. avoirdupois, potassium carbonate

6 oz. avoirdupois, brightener ¼ oz. avoirdupois and 1 gal. distilled water.

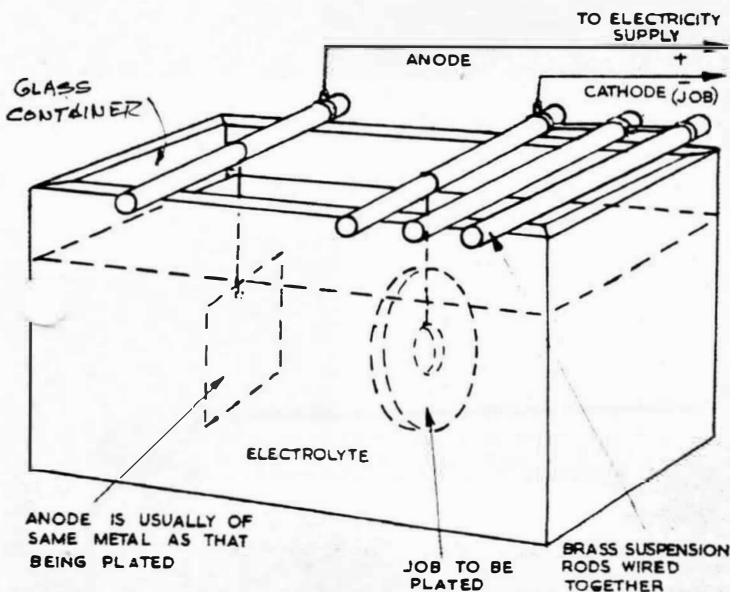
**Another mixture**

An alternative silver plating bath can be made up thus: silver cyanide 3 oz. troy, sodium cyanide 2½ oz. avoirdupois, potassium nitrate 15 oz. avoirdupois, brightener ¼ oz. avoirdupois and 1 gal. distilled water.

Each of the above silver plating formulas is used at five to 10 amps at three to six volts and a temperature of 78 deg. Fahr. The anodes are of stainless steel or silver. The brightener referred to is made by adding a few ounces of carbon disulphide in a quart of strike bath solution.

Two words of warning: remember all parts must be clean and bright before dipping and, a more important tip, always add acid to water, not the reverse.

A simple bath that could be built very easily from accessible materials



The article below tells about using lead patterns for plating of parts.

This was part of a story of the build- of the S.S. "Robert Allen", an 8' radio controlled cargo liner by Ivan Miller. (1955 Model Engineer)

**THE MODEL ENGINEER**

**Ventilators**

Making the ventilators was evaded for a long while, there being so much else to do, i.e., until a simple method of producing realistic cowls could be found. Enquiries at the "M.E." Exhibition and elsewhere produced a variety of answers, amongst them "electroplating." This appealed strongly, but no details of currents or times were immediately available as to how to copper-plate lumps of lead. Nevertheless, an effort was made by preparing the necessary patterns in boxwood as being a nice substance to work, which would take a good finish by itself. Simple two-part moulds were made in dental plaster of paris in the usual way, and lots of solid lead ventilator cowls resulted. These were given a good surface and provided with tails by soldering 6 in. lengths of copper wire to the ends for suspension in the electrolyte; this, of course, was a saturated solution of copper sulphate got from the local chemist and rendered slightly acid by a drop of sulphuric. The solution so prepared was put in a glass jug of about 1-qt. capacity and 5 in. diameter, and a sheet of old copper found to line the jug and couple to the + terminal of a 12 volt lamp half-wave trickle-charger. As a start, two of the lead castings, coated with cellulose paint where no deposit was needed, were connected to the - lead of the charger, immersed in the middle of the jug, and the juice switched on. After perhaps half an hour a dark reddish brown mud had collected on the castings, which could be easily wiped off! So with little hope for any greater success, six were put in instead of two and set so that they were uniformly spaced and

presented the bulk of their surfaces to the sheet of copper. After an hour, the deposit appeared bright salmon-pink and quite smooth and hard. With this heartening evidence, they were left for about four hours more and checked again, this time with a file, and were found to have real metallic copper coats perhaps 1/100 in. thick. They were, therefore, left for another three hours, or a total of eight hours, before switching off. It sufficed then to give them a rub over and trim the ends and bases with a smooth file before dropping them into molten lead to remove the interiors. It was quite a joy to pick out the cowls, which had floated to the surface of the molten lead, all ready to have stiffening wires soldered on their mouths and be sweated into tubular supports.

How far the technique departed from good practice, what the current density on the plated surfaces was, etc., are still unknown, but the idea worked fine. Before next time, however, a text book on the subject will be obtained. (Percival Marshall already publishes one—Ed. "M.E.")

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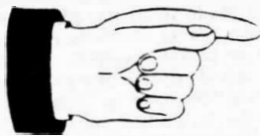
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SAN DIEGO SHIP MODELERS' GUILD  
BILL KELLY-FLEMING  
/redacted/



Fred Fraas  
/redacted/

SAN DIEGO SHIP MODELERS' GUILD  
OFFICERS FOR 1986

MASTER	Doug McFarland	/redacted/
MATE/LOGKEEPER	Bill Kelly-Fleming	/redacted/
PURSER	Herman Boehme	/redacted/
EDITOR	Roy Nilson	/redacted/
STEERING COMMITTEE	Al L'Heureux	/redacted/
	Fred Fraas	/redacted/
MEETINGS:	3 rd Friday of each month, 8:00 P.M. aboard the bark STAR OF INDIA on the Orlop Deck.	
MEMBERSHIP:	Dues are \$10.00 yearly. After July the dues are $\frac{1}{2}$ for the rest of the year. We highly encourage all to join the S.D. Maritime Museum.	

