The Binnacle

Victoria Model Shipbuilding Society
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http://members.home.net/vmss

We did well at Nanaimo

Congratulations to Rosemary Allen, Ed Boddaert, Rick Gonder and Doug Allen for their success at Nanaimo. Doug got 1st, 2nd and 3rd in the fish boat category with *St. Mongo, Orea 1* and *Terra Nova.* Rick took 1st in Pleasure with *Sea View* and third in Tugs with *Alan B.* Ed won 1st in tugs with *Zwarte Zee.* Rosemary placed 2nd in the Steering Course.

This was Alf Fletcher's year. He pretty much cleaned up with 9 trophies including Public's Choice and Modeller's Choice.

From the Bridge

By the time you read this, we will have had our first regatta of the year, hopefully a successful and happy one.

Thanks to all the participants and the volunteers who helped Rob Woodward set it up and run it. Thank you Rob!

Membership is down slightly this year, so how about introducing a friend to model ships? This is a great hobby, and your friends deserve to share the very best!

Ron A

Regatta Results
May 7,2000

Congratulations to the following skippers for their solid performances in the first Regatta of the year:

1 MIKE GIBSON
2 ROB WOODWARD
3 BOB RAINSFORD
4 ED BODDARD
5 RON ARMSTRONG
6 JOHN McHUTCHION
JACKPLUMMER
7 KEN LOCKLEY

A good number of boats turned out for the regatta and we had a great display for the public of which there was many looking at the models, but I was a little disappointed at the lack of skippers wanting to do the steering coarse .The next regatta will be June 25 with a whole new different layout, don't be afraid to join in!!!

Rob Woodward
Regatta Director

Cautionary Markers

2000 Executive
President: Ron Armstrong 391-0101
Secretary: John McHutchion 480-4048
Treasurer: Derek Woollard 658-1150
Directors:
Scott Ringrose 744-3048
Rob Woodward 474-5912
Mike Gibson 474-6539

Dates to Remember

May 19, 20 and 21 Skagit R/C Modellers, Anacortes (Wayne Martin 360-424-1308)
May 25 Ceremony of The Flags, Legislature
June 8 Regular Meeting, Swap n Shop
June 25 VMSS Regatta, Harrison Pond
Jul 1 Canada Day
Jul 1+2 Great Lakes Model Boat Assn Exhibition, Pier Waterfront Museum, Toronto
Jul 9 Strawberry Festival
July 13 Regular Meeting, Romaine Klaasen revisits the "Sub Subject
July 29 & 30 Delta MYC EC12 Regatta, Sacramento, Ca
Aug 10 Regular Meeting
August 13 Burnaby Assn Marine Modellers Regatta (Cyril White 604-526-0279)
August 19 Foss Cup, Bellevue Wa (Ron Burchette 250-245-7801)
Sep 2-4 Saanichton Fall Fair
Sept 14 Regular Meeting
Sept 30 Victoria Scale Modellers Contest and Swap Meet, Esquimalt Rec Centre
Oct 20 and 21 VMSS Hillside Shopping Centre Display

Regular Events
Every Sunday
Harrison Pond 9.30-11.00- Power
1 st and 3 rd Sunday
Beaver Lake 10.30-1.30 * Star45s, EC12s and Marbleheads
2 nd and 4 th Sunday
Harrison Pond 1:30 Small sailboats

Harrison's Folly

Ann Lockley

Ann Lockley , the daughter of two of our members, wrote this history of Harrison Pond for a commercial tourist publication. Thanks Ann, for your permission to use it here.— Editor

Dallas Road has many well known points of interest - Ogden Point Breakwater, Clover Point, Mile '0', and the fantastic views seen from the intertwining walk ways to name a few.

However, one of the most misunderstood facets of the waterfront has caused more controversy then most of its more famous counterparts. Many still think of it as merely a meeting ground for the local duck population, yet Mayor Claude Harrison, in 1953, originally built Harrison Yacht Pond to be a meeting place for boats.

Measuring 80 meters by 30 meters, Harrison Yacht Pond, or 'Harrison's Folly' as it was quickly dubbed, sits at the bottom of Government Street on Dallas Road, nestled in a semicircle of conifer trees. For quite sometime, debris resulting from construction of the pond was piled by the side of the road before removal, much to the dislike of the park users and nearby residents.

Once construction was complete and the landscaping finished, Victorians quieted down about the folly and quickly forgot its original use - until 1972, when some thoughtless individuals began to race their model power boats as if it were, in fact, a yacht pond. The infuriated duck feeders quickly took their concerns before the City Council, stating that the boats were endangering the wild fowl. In time, legislation was passed that the basin "was designed in the first instance for the use of model boats and not for the ducks."

Compromises, including restrictions of the size and the time of year motorized boats could be used, were made to allow for all parties to live in peace with one another with a note that if the ducks found a "more convenient location" to socialize, the ban would be lifted.

Nearly three decades later, the ducks have to share the pond with boaters more frequently than ever before. The Victoria Model Shipbuilding Society uses the pond almost every Sunday for practice, and in doing so, has taken the basin under their wing. In 1998, the V.M.S.S. had a plaque erected that reads 'Dedicated in 1953 by Mayor Claude Harrison for the fun and enjoyment of model boating, Victorians and visitors alike".

The ducks do not seem to mind the boats or their captains, or that the pond is cleaner - just do not ask the modelers what they think of all the duck poo!

THE SUB SUBJECT

Yes! Linkages are this month's topic, and for sure next month's as well. But first: I detect this challenge among readers-V.M.S.S. members: Could I, even to save my life, string together some 1,000 words in/of standard English? Although I used to, I now kind of doubt that ability. All residual determination and pseudo intellect, you see, must nowadays go into keeping my three sub models operational, and none of them takes much interest in this dedicated column. But, hey, I'll try (somewhat).

Those among us who remember our younger years, and took grade-school Science 0.20 or Engineering 0.33 may recollect the so-called "simple machines"--mechanical shapes or arrangements that will use, modify, apply or simply transmit energy, and do so with a mechanical advantage, i.e. yield either more power or motion at the output than that put in at the start. The "start" that concerns us in this review commonly is an electric motor plain 'and simple, or one that is afforded the cloak of a servo.

Depending on course, teacher or source, simple machines number anywhere from four to seven or more. Fulcrums, inclined planes, levers, pulleys, screws, wedges plus wheels and axles cover it pretty well. But even so, the distinction between them is nebulous. To my mind, an inclined plane is a wedge, and a pulley is a wheel--and what would a fulcrum do if it weren't shacked up with a lever? Let's not take this stuff to the floor of the United Nations for debate, and get on with the intended diatribe.

I'm, of course, intent on spouting off on linkages for model submarines, but no matter how thin it's sliced, it will not take either genius on your part, or perspicuity on mine to reveal their ready applicability to surface models, planes, cars, trains, garden mobiles or Rube Goldberg devices

The first link in linkage, broadly speaking, is the conversion of a servo's rotary output action into linear motion is to stick a horn on the swiveling shaft and you've got it. Put a clevis in one of the horn's (lever's) holes, attach a rod, and think of something for the end of that rod to do (i.e. operate) inside or outside of the model. At times, this may involve attaching the far end of the rod to another lever which, in turn, may be attached to the shaft of a quite pedestrian rudder. And, pedestrian or not, such a set-up can do the trick, and give many hours of on-course navigation to the model and its builder or assembler.

In a submarine model, however, such a simple matter can magnify to migraine headaches--known to the Germans as "kopfschmerzen" (I looked that up)--because subs, U-Boats especially--tend to narrow down at their stern, the very place where the rudder shafts wants inside the hull, to a point where "levers" have to be so short that they either lock up or make for veerings or turns so slow you can take a tea or scotch break while they're happening. To the rescue then.

The illustration below shows how a tight-quarters rudder may still be swung port-starboard and vice versa with the greatest ease of elbow room. As shown, the answer is: rack and pinion.

In automotive and most other applications, of course, the driver/operator rotates the pinion and the rack (connected to, say, wheels or whatever) moves to the left or right, or up and down if that's the general idea. What's so totally altogether different here, though, is that the source of (electro-mechanical) input power is switched from the pinion to the rack. The pinion is attached to the top (inside) end of the rudder shaft, while the rack is moved back and forth by the business end of the servo linkage.

As the illustration may show, the designer-builder (one Charlie Johnson, writing on page 53 of the December 1999 Issue 39 of The Subcommittee REPORT) made his own rack out of brass rod (3/16" in the drawing, but 1/8" in the text) and writes that he used an R/C car pinion for the pinion.

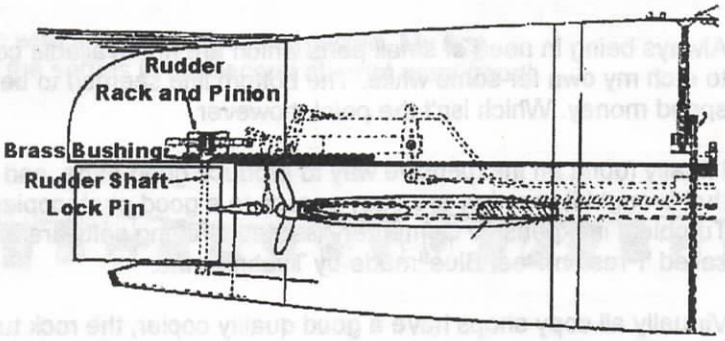
Not all that tricky to do with a small, triangular file. But easier still: lots of rack and pinion sets to be found in discarded VCRs and CD players. The ones out of either one of those appliances are made out of "plastic" materials, but will do very nicely for low-friction jobs such as moving a rudder.

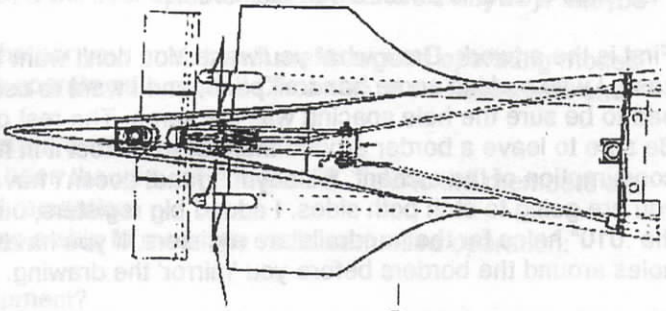
As I see the rack-and-pinion application to a model's construction, it is so simple, easy to build and versatile (further: precise, because it can eliminate slack) that in the near future, I'll adopt it for linkages where crowded quarters are not the imposing factor. Say that you want to move a gun turret one way and the other, or an entire figurine (or only its head or an arm left, right or up or down) RACK AND PINION is the solution to the problem. A simple one, but empirical research shows me that it is an efficient one. The travel possibilities, of course, are dependent on whether one uses a servo or a motor at the energy's end.

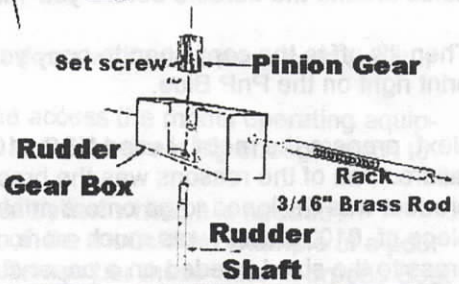
I must add that Charlie Johnson was so happy with his application of a suggestion contained in the instructions of a Rocky Mountains Models kit for a German Type XXI sub that he took it out to pond meetings long before he installed it.

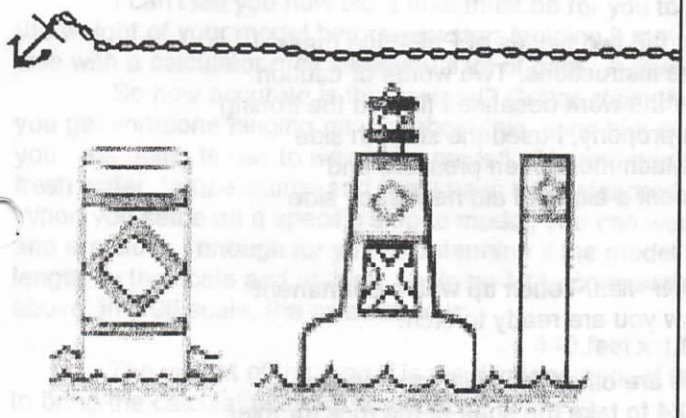
Next month: wedges, ratchets and magnets.

Romanus Unicum









Hazard Markers

MAY/2000 LIBRARY REPORT- KEN LOCKLEY

I was pleasantly surprised to receive two new editions to our library system. Bill Birch received these two editions from an anonymous donor out side of the club. These publications originated from the Victoria Public Library Discard Sale. They are:

SHIP MODELS FROM KITS by Colin Riches.
The author describes very clearly how to make the most of quality kits by such companies as ARTESANIA KITS.

THE MODEL SHIPBUILDING HANDBOOK by Brick Price.
The author here is a resourceful modeler who shows his ideas clearly on how to overcome problems whether building kits or scratch. He also covers casting parts and making live figures. His last chapter on photography for your models is good and not often touched upon.

Again whoever was the donor, our club thanks them for considering the V.M.S.S.. The library is improving month by month for all members to use.

Do It Yourself Photo Etching

Ron Hillsden

Always being in need of small parts which are not available commercially, I have been fooling with trying to etch my own for some while. The bottom line seemed to be to get a good quality product, you need to spend money. Which isn't the point, however.

I finally found an inexpensive way to produce good parts, and just about everyone can do it! The things that brought it together are easy access to a good photocopier, a toy called a 'Rolling Stones Rock Tumbler', inexpensive Computer Assisted Drafting software and a printed circuit board etching mask called 'Press-n-Peel Blue' made by Techniks Inc.

Virtually all copy shops have a good quality copier, the rock tumbler my partner-in-the-black-arts picked up at a garage sale for $1 (they are still available new), I had the CAD software, and a sample pack of 5 PnP-Blue sheets is about US$5 mail order.

First is the artwork. Draw what you want. You don't want a 'negative', so a normal drawing will do. In my case, I was making some handrail parts, and I want to use Gold Medal Models etched stanchions, so I had to be sure the hole spacing was the same. The rest of the dimensions came off the ships drawing. Be sure to leave a border around the part to protect it in handing and etching, and also reduce the consumption of the etchant. Fill anything that doesn't have to be etched away. A word about registers if you are going to etch both sides. I added big registers, but that was a mistake. I wound up using the .010" holes for the handrails are registers. If you have to add a register, use very small holes around the borders before you 'mirror' the drawing.

Then it's off to the copy shop to copy your drawing on the PnP-Blue. If you have a laser printer, you can print right on the PnP Blue.

Next, prepare the metal. I used K&S 010" brass from the hobby shop. One of my first two sprues was a failure. One of the reasons was the brass wasn't flat. Techniks tells you the brass must be flat. This product was designed to go onto a printed circuit board which has a better chance of being flat than a piece of .010" brass. I was much more careful the second time, and didn't have any rejects. I cut the brass to the size I needed on a paper cutter, and cut off the corner that curled. I power sanded the edge to get rid of the ridge, and finished up by filing it while holding the brass on a piece of wood (so it couldn't bend). I finished the preparation by wet sanding with 400.

Two sided etching requires mirror image masks, and they must be lined up precisely. One of the problems with my first attempt was lack of register, and I tried to fold the PnP-Blue to keep the register. It doesn't like to fold. So I dusted off my old light box (remember them from drafting days?). I separated the sides of the mask, but left one side of the backing material bigger so I could tape them together again. On the light box, I saw the light. That's when I realized I could use the hand rail holes to register the sides. I used Scotch Magic Tape to hold the two sides together.

To transfer the drawing to the brass, I slipped the brass between the two pieces of PnP-Blue mask. I used the family steam iron (No steam, please) following Techniks instructions. Two words of caution here. The first time I used a piece of corrugated cardboard under the work because I figured the ironing board cover was too soft. I was right and wrong. To have it work properly, I used the smooth side of a piece of light cardboard on the kitchen counter for support. Much more even pressure and temperature. You will have to follow the instructions and experiment a bit, but I did heat each side of the metal for 2 minutes , "pressing" in the final 30 seconds.

Then just quench the hot brass and PnP-Blue and remove the PNP-film. Touch up with a permanent marker if necessary, or remove any blue colouring with tape. Now you are ready to etch.

I used Ferric Chloride because I have lots, but I understand there are other 'friendlier' chemicals available and preferred now. I drilled a hole in a short piece of 2X4 to take the shaft of the rock tumbler cup so it can be left with the open end up. I filled the rock tumble cup about ½ full with the Ferric

...oride, gave it a one minute ride in the microwave over to warm it up, threw the bass in, made sure ...he lid was tight, powered up the rock tumbler and left for about 15 minutes. In 15 minutes, .010" brass will just about be finished. I can't leave things alone when they are cooking! Check your work, and rinse well when done. Clean with wet or dry or steel wool, and you are ready to paint and install!

You do not need to shy away from this. The learning curve was a lot flatter than I expected. My first attempt with 2 sprues got me one that was acceptable. All the sprues in the second attempt were good!

See the 'Tips" section on our Web page for photos.

Will it Float?

Planning to make a radio control model? It probably will float, but how well? If it doesn't perform, you won't be happy. What happens if it is top heavy? In the worst case, it will float upside down. For a while anyway. Maybe even long enough for you to get it back!

Part of the planning process should be considering whether your subject will make a good operating model. Not all ships are equal when it comes to scaling them down to operate as a model! Of course if you anticipate and plan for problems, you will likely have more success.

Most people are concerned about cost initially, but there are other considerations.

If you are going to build from a kit, chances are it has been thought out and tested. Talk to the members of your model boat club to see if the kit manufacturer has a good reputation.

Here are some other factors to consider when choosing a ship to model for radio controlled operation:

1. Can you get your fingers inside to install and service equipment?
2. How are you going to move it? A long heavy model is difficult to get through doors without bashing both ends! If it's heavy, how will you get it into the water?
3. If you want a model that will pick up points in a competition, can you hide the access the model operating equipment, for example, can you put your openings under the superstructure and still have a big enough hatch to get into?
4. If it's a smaller model, will you have enough "unused" weight so you can add ballast where it is needed?
5. What was the original ship designed to do? Will that effect the performance of the model? An example of a poor choice for an inexperienced modeller is the 1/96 scale WW1 destroyer. Remember these were "Torpedo Boat Destroyers" were built with one purpose - go as fast as possible in a straight line to catch and destroy Torpedo Boats. They have very small rudders, were light weight and demonstrated lots of top-hamper. Top-hamper is exaggerated in a model because we often use materials thicker and heavier than scale, but only where you can see them - on the upper decks! Leave some spare "weight" for boilers and bunkers!
6. Can you get enough information about the subject to build a good model?
7. The more complex the model, the more it will cost, the longer it will take to build and the more maintenance it will require. You may want to start with something modest so you gain experience, have some fun operating it and make some new friends while you get on with the 'BIG PROJECT'!

I can't tell you how big a hole must be for you to get your fingers through, but calculating measurements and the weight of your model before you start building it may be one of the most useful things you can do. A simple exercise with a calculator may save you a lot of grief. A few examples:

So how accurate is this method? Critics claim there is an error because we can't scale the density of water. If you get someone pinging on you about this, send him away to see if the error is as great as the error in the scales you are going to use to weigh the model! Oh, and don't mention the error due to the difference in density of salt and fresh water, temperatures and that I have totally ignored metric tonnes (they are 10% more) in these calculations. When you settle on a specific ship to model, you can work in greater detail. These calculations illustrate the method and are close enough for you to determine if the model is 'do-able'. To get a length measurement, multiply the length by the scale and multiply again by 12 to convert the distance into inches. For example, using the frigate above, in 1/96 scale, the calculation is:

440 feet x 1/96 x 12 = 55 inches

The weight of the model is the displacement of the ship multiplied by the cube of the scale and again by 2000 to bring the calculation down to pounds:

4,750 tons x 1/96 x 1/96 x 1/96 x 2,000 = 10.75 pounds

Type of Ship	Ship's Dimensions	Model's Dimensions
Coast Guard 44 foot Motor Life Boat	Length: 13.45 Metres, 44 Feet Displacement: 11 Tons	1/48 Length: 11" (28cm) 1/48 Weight: .2# (.09kg) 1/24 Length: 22" (56cm) 1/24 Weight: 1.6# (.75kg) 1/24 is OK
WW1 Naval Destroyer HMCS Patrician	Length: 83.5 Metres, 274 Feet Displacement: 1,004 Tons	1/96 Length: 34.25" (87cm) 1/96 Weight: 2.3# (1.2kg) 1/72 Length: 45.7" (116cm) 1/72 Weight: 5.4# (2.4kg) 1/96 maybe-see note
Modern Frigate HMCS Calgary	Length: 134.1 Metres, 440 Feet Displacement: 4,750 Tons	1/144 Length: 36.7" (93.2cm) 1/144 Weight: 3.2# (1.5kg) 1/96 Length: 55" (140cm) 1/96 Weight: 10.75# (4.9kg) Both OK
B C Ferry Spirit of Vancouver Island	Length: 167.6 Metres, 550 Feet Displacement: 18,790 Tons	1/200 Length: 33" (83.8cm) 1/200 Weight: 4.7# (2.4kg) 1/96 Length: 68.75 " (175.cm) 1/96 Weight: 42.47# (19.25kg) 1/96 Too big for most of us

Minutes of the April 13 2000 General Meeting

NO NEW MEMBERS
NO GUESTS
1 VISITOR PATRICK MOREHOUSE/SCALE MODELER
JACK PLUMBER LIBRARIAN

ENTERTAINMENT OPEN FORUM STARTED BY ED BOD-DAERTAND A STERLING KIT HE BROUGHT.

DEREK GAVE A FINANCIAL REPORT
DISCUSSION ON THE XMAS PARTY.

ENTETAIN MENT FOR MAY-TED ROBERT`S TALK
JUNE-SWAP & SHOP
JULY-ROMAIN KLAASEN

REPORT FROM ED BODDAERT ON THE STATUS OF THE POND.
RON ARMSTRONG MENTIONED THE UPCOMING ARTICLE IN ISLANDER MAGAZINE.