PLAYBOY, SR.

Joe Elgin's famous Free Flight design of the 30's makes its debut as an RC old-timer. You'll find it has no peer. By Paul Denson.

Take a look at the kit you are flying — nine chances out of ten you know who designed the plane, probably because he flew the ship to a National Championship at one time or another. Goldberg became famous because of his Sailplane, Zipper, and Clipper. Sal Taibi flew his Powerhouse and Brooklyn Dodger. Today, Mark and Rod Smith have flown the Windward and Windfree to victory in many National Sailplane contests. These people are known by all modelers because they flew their own planes and received the publicity they so well deserved.

Have you ever heard of the Playboy? Oh! Sure, it was a kit that was put out by Cleveland way back in the '30's.

A good plane? Yes, it did win a large number of contests, rumor has it that it eclipsed all kit planes as a contest winner. Ever see them around any more? No?

Check out the old-timer contests, it is right in there with the best. Look through any model magazine and see how many pictures of this pylon beauty you will find. It is still the most beautiful Free Flight plane you will ever see.

Free Flight? Sure, and try R/C too. You will see Playboy flying in the pure form with spark plug, coil and condenser. You will see her with a glow engine and three channel radio searching out the thermals and floating like a big 7 ft. feather.

Who designed the Playboy? Well-er-uh it was a Cleveland kit and you can get information from John Pond about her.

I asked you, "Who designed her?" I didn't know either and I was flying one myself. So I went to the dean of old-timers, John Pond and asked him. He told me he thought it was Joe Elgin — he had flown with Joe many years ago, but in answer to another query, he did not have the slightest idea where I might find him. "You might try some of the other old-timers" and this I did.

I wrote the AMA and asked Frank Ehling, I wrote Frank Zaic, I asked Clarence Mather, I went up to Lake San Marcos and talked to the curator of the model museum, Russ Berrera — you would think that a lineup like this would at least have some idea. They all gave me clues, but nothing definite. Since Cleveland Model Supply Co. had been in Cleveland, I should write someone there and perhaps he would know. It was pointed out that Dick Korda was a long time resident of that Ohio city. While looking up Dick's address in the Cleveland telephone directory in the library, it dawned upon me to look and see if a Joe Elgin was there too. There was just one Joseph Elgin listed therein. The next

Miss Janice Hall poses with the author's Playboy Sr. on floats. Photo taken at Lake Murray, San Diego, California.

LEFT TO RIGHT: Joe Elgin, Dick Korda, Bob Besse, Chet Novak, John Wullschager, George Reich, George Vasenko, Harry McCall. Photo taken in 1939 at the Nationals, the year Dick Korda won the Wakefield event.

day I dashed off two letters with high hopes. The letter to Dick was returned for one reason or another known only to the postal service. Two days later a letter arrived from a Joe Elgin postmarked Cleveland. It took guts to tear open the letter as this was my last avenue. It was a short letter admitting to being the right Joe Elgin and saying, "Let's talk about the Playboy series — it has been a long time." Much of the following is from subsequent correspondence with Joe.

Today thirty-five years later, the name Playboy almost seems up-to-date. From years of experience in Free Flight, indoor and outdoor rubber, a small Free Flight gas job evolved. As gassies went in those days it was relatively small, "junior size" I guess you would call it, but extremely successful as a flyer. It performed! When it was scaled up to 7 ft. wingspan, kitted and christened with the, then ridiculous name, Playboy, it became a powered sailplane — a real floater. Flown with an O & R .60 up front it started a new page in the history of modeling. In the winter of 1939 the kit hit the market and Bill Schwab built the first Playboy Sr. He went on to win many contests, first in Cleveland, first in Akron, and sixth in the Chicago NATS. This is the plane that broke the world's record twice within 7 days. That was just the start and she is still going strong today.

The original kit was $3.95 complete, less engine. Try $39.50 today for the same kit — it doesn't seem out of place. Then look around at your local hobby shop. There wasn't much difference in putting the kits together back then. If things got busy, you stopped your tasks at the drawing board, went back and helped run balsa through a

R/C VERSION OF THE PLAYBOY SR.
Designed By: Joe Elgin, modified for R/C By: Paul Denson

TYPE AIRCRAFT
Old-Timer R/C
WINGSPAN
80 Inches
WING CHORD
10¾ Inches
TOTAL WING AREA
750 Square Inches
WING LOCATION
Pylon Mounted
AIRFOIL
Undercamber
WING PLANFORM
Constant Chord Center Section
Elliptical Tip Panels
DIHEDRAL, EACH TIP
7" (polyhedral 2" at break and 8 inches at tip)
O.A. FUSELAGE LENGTH
40¾ Inches
RADIO COMPARTMENT AREA
(L) 10" X (W) 3" X (H) 3¾"
STABILIZER SPAN
27⅝ Inches
STABILIZER CHORD (incl. elev.)
7 Inches (Average)
STABILIZER AREA
175 Square Inches
STAB AIRFOIL SECTION
Flat Bottom
STABILIZER LOCATION
Top of Fuselage
VERTICAL FIN HEIGHT
7⅝ Inches
VERTICAL FIN WIDTH (incl. rudder)
6 Inches (Average)
REC. ENGINE SIZE
.29-.35 Cubic Inch
FUEL TANK SIZE
6 Ounces (round)
LANDING GEAR
Conventional
REC. NO. OF CHANNELS
Three
CONTROL FUNCTIONS
Rudder, Elevator, Throttle
BASIC MATERIALS USED IN CONSTRUCTION

Fuselage	Balsa, and Ply
Wing	Balsa and Ply
Empennage	Balsa
Weight Ready-To-Fly	48 Ounces
Wing Loading	9.23 Oz./Sq. Ft.

LEFT TO RIGHT: Stan Hill, Carl Wheeley, Joe Elgin and Dave Kneeland. 1953 U.S.A. Power Team at Cranfield, England - - - Dave Kneeland – World Champion.

gang saw that could cut up to 8 sheets at a time. "I think all model builders often wonder about the sawdust we've inhaled in our lifetime. But in the woodshop you did it in one afternoon."

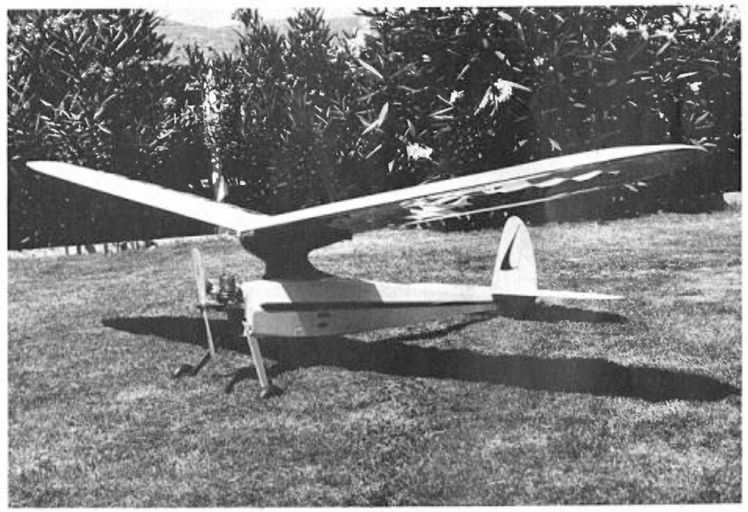
Cleveland Model and Supply Co., Inc., owned by the Pachasa brothers, put out two other Playboy kits — the Junior, from which the whole series evolved, was powered by an O & R .23 and had a 46" wingspan and was priced at $2.50. The Baby of the family, ready to fly with batteries, coil, condenser and engine, weighed under 16 ounces. The 33" wingspan Baby, purchased for a whole dollar, would correspond to the 1/2A planes we are flying today with TD .02's.

Cleveland — it was a good place for a model builder in the '30's and '40's — in fact, it was the hub of the model world and the model company that bore the city's name did a large job in publicizing the area. Who has not sat by the hour and looked at the ads with a picture of each plane they put in the model magazines. One would be hard pressed to find an old-timer who has not built a Cleveland Kit. There were many names that also made Cleveland famous. A local contest would have appeared like the Nats of those days: Dick Korda, Chet Lanzo, George Reich, Red Hillegass, and Jerry Kolb are some of the guys who represented two fine clubs, the Cleveland Balsa Butchers and the American Airlines Gas Model Club. Dick Korda won the Wakefield in 1939, Reich did it in 1960, and many of the other flyers, including Joe Elgin were members of the U.S. teams in Wakefield, FAI or Nordic.

About this time WW II came along and most of the modelers felt there must be a niche in the flying end of the armed forces for them. Joe Elgin became a navigator on a B-17 and, after 19 missions over Germany, a FW 190 knocked them out of the air. He spent 16 months in a prisoner of war camp. A modeler is a modeler wherever he may be. "I scraped glue from furniture joints, split wood (not balsa) to its finest with razor blades and used rubber obtained from suspenders and elastic. I was able to construct some simple stick models that actually flew out of the barbed wire compound. The German guards were very cooperative and actually retrieved the models for me. Whenever I flew, the other prisoners playing baseball would stop and watch. It was a lot of fun."

Joe started as an apprentice lithographer after his year at Cleveland Model Supply and is still in that trade today. After WW II he continued his model plane hobby as a member of the 1951 Wakefield Team, the year the contest was held in Finland. One week later they flew the first FAI meet in France. On his first flight he lost his Arden .09 powered ship OOS. He maxed, but the ship was never recovered and, since that was his only plane, he was out of the contest.

At the 1953 Cranfield, England FAI meet, Dave Kneeland became World Champion and the U.S. Power team won



first place. Stan Hill, Carl Wheeley, and Joe Elgin were the other members of that team. The Playboy Sr. was now 15 years old.

Joe Elgin's interest in flying hasn't stopped since — he still flies indoors but since he started to fly the 'real thing' about 6 years ago it is more fun to visit a strange field, rent a glider, and do some soaring, now he is up there in person where the Playboy has spent these past 35 years searching and floating from thermal to thermal.

CONSTRUCTION

The plans for the Playboy are pretty much self-explanatory. So was the last kit I built and it was the hardest ever, so perhaps a few words are in order — particularly having to do with the modification for R/C.

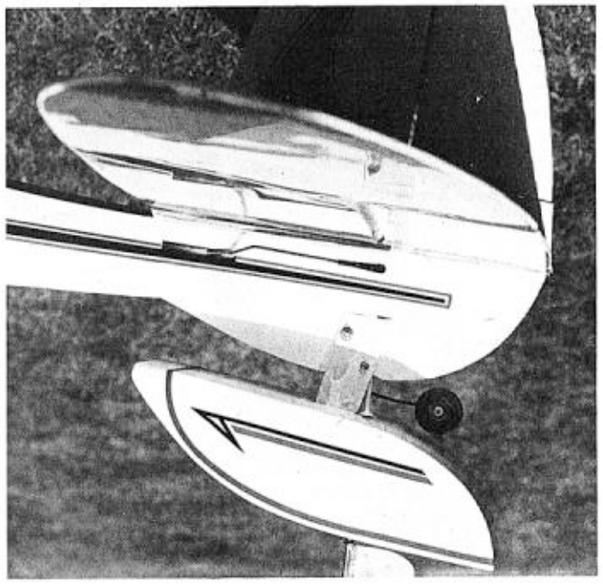
Extremely important is the beefing up of the wing to stand the stresses placed upon it by movable control surfaces, after all, you are going to be tempted to do an occasional loop or snap roll, and the wing must be strong enough to take it. Even though the spars are spruce and you have 1/8'' ply sheet dihedral braces, the main spars must be webbed with 1/16'' sheet vertical grained balsa out at least to the polyhedral break. I had not webbed the prototype and recently snapped the wing just outboard of the dihedral brace pulling out of a dive before going into a loop. The bottom spar broke the glue joint between it and the dihedral brace and the top spar failed. If it had been webbed this wouldn't have happened.

Because of the pylon on top, entrance to the flight pack must be through the bottom. Finish the cross grain planking on the front of the fuselage then remove the section designated as the equipment access door. Don't forget to build the fuel tank area before planking the fuselage. The fuel tank may be removed through the access door, if necessary. I used the largest cylindrical fuel tank that would fit the space, in this case a 6 ounce tank. A .29 will run for about 15-20 minutes at half throttle on this much fuel.

Make sure the 3/16'' square spruce vertical piece of the fin extends through the sub fin. Since it passes through the stab it will weld the tail assembly into a compact unit. Furthermore, if you decide to use floats it will be the hardwood point of attachment for the rear float. If there is even a small chance that you intend to fly the Playboy Sr. on floats, install the 3/8'' x 1/2'' hardwood cross member in the fuselage before planking — it may be added later on but is difficult to do so.

As an R/C trainer, the Playboy Sr. has no peer. My 15 year old young friend knows, no matter what position it gets into, just let go of both controls and it will get **itself out** of trouble. It is too inherently stable to stay in any position but right-side-up. Don't try to fly it inverted — it can get into that position but, since the airfoil is designed for lift, when inverted it lifts **down** and **fast.** It would decidedly be a way to get out of a boomer thermal, quickly.

I must give credit to Joe Elgin for the design and drawings, some of which I



traced. The sketch of the pylon, and the one showing the planking, were drawn from the original which was done by James Powell, a great illustrator who did all the fine sketches showing details which words or 3-views couldn't compete.

Try the Playboy Sr. on floats. A greater thrill is hard to find as she rises up on her floats gently kissing the top of each wavelet then lifting clear, leaving a twin row of droplets across the surface of the water as she moves serenely into the blue sky.

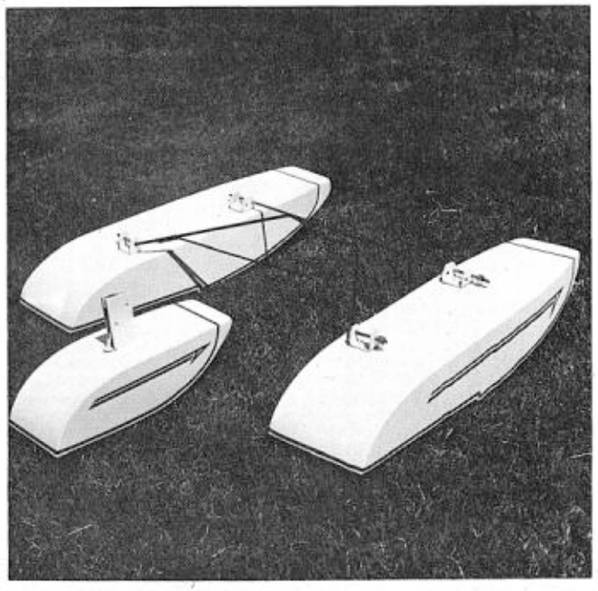
ANTIQUE AND OLD-TIMER FLOATS

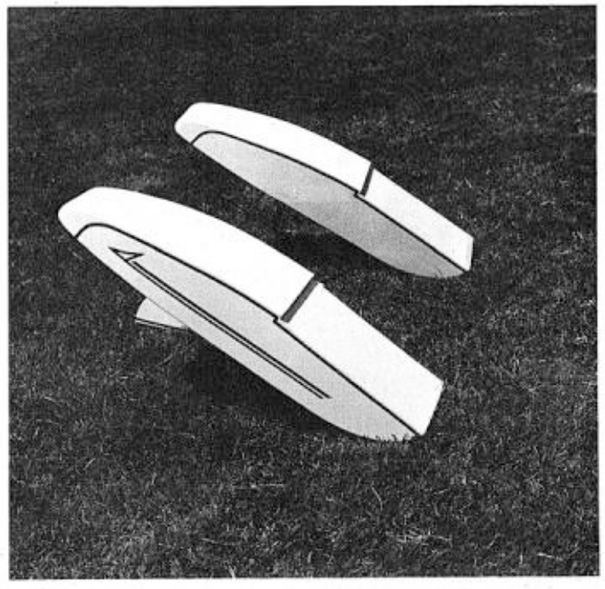
Flying R/C old-timers falls into two categories, that of contests with various and sundry rules and Sunday Flying. After trying a loop, a few touch and go's, you get way up there, cut the engine and see how many thermals you can catch. But, you find you want something else to slip in-between. Wait until you put floats on old faithful!

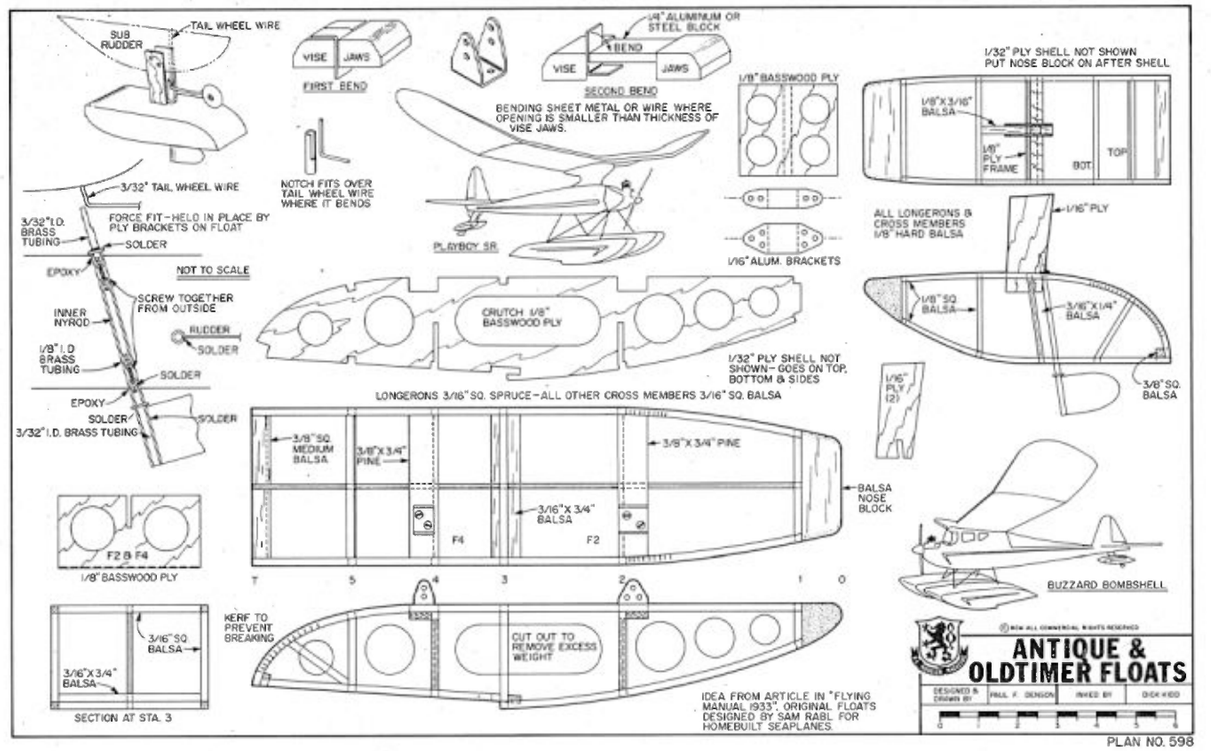
There are floats available in kit form, made of plastics and even plans for floats in RCM, but these modern floats do nothing for the aesthetic value of an old-timer or antique. (As a matter of fact, some would say neither does R/C!) While doing research on another project in the Flying Manual Aviation's ''How-to-Build'' Handbook for 1933, I ran onto a set of seaplane floats designed for the Pietenpol Air Camper by Sam Rabl. These floats, weighing only 32 lbs., were for home-built planes up to 600 lbs. of flying weight. In the article were 6 pictures of the finished floats for various planes and all 6 pairs were different from the plans, so I guess if those early flying builders could experiment, so be it. These are my experiments in the model float field.

Build a pair, and the first take-off is one you will remember forever. Push her out into the lake, then add a little throttle to see if she will taxi. Try a water turn or two to see if the water-rudder is effective, then aim her upwind. Pour on some power, a little more, just a hair more, and up she comes out of the water like a giant water bug on stilts, kinda skittering across the water leaving a pair of twin wakes. With a splattering of drops on the surface she is airborne and climbs gently into the sky.

Joining the crowd at the lake or the beach is easy — the floats aren't that difficult to make. These are two important things to keep in mind, however, if you are flying from salt water: Stay away from steel fittings whenever possible. If they are necessary (and landing wires are) clean them, then coat with zinc chromate and paint with a good fuel proof color. Second, you are in a new medium — water — and it can get in almost anywhere, so protect your radio — if you get it wet in salt water, always have fresh water to wash it immediately, not later when you get home







— it will be too late when you find that corrosion has already set in. Since the floats are meant to be in the water, they must be constructed absolutely water tight. I use 5 minte epoxy and model cement since the aliphatic resin glues will break down if they get wet.

You will now get your introduction to boat building since these floats are built like most small boats, upside-down. Construct the two sides from 3/16'' square spruce, using balsa for the cross members. Near the stern, where the transom should be, it will be necessary to make a few saw cuts, cerfs, so the spruce longerons can make the sharp curve. Cut the crutch and formers F2 and F4 from 1/8'' basswood ply. The latter may be obtained from one of the larger hobby dealers and it is much lighter and less expensive than birch aircraft ply.

Cut the two 3/8'' x 3/4'' pine cross members to length and taper the ends of the one at F2 slightly. Next, lay in place on the top view, put the crutch over them, and glue it in place. Make sure the crutch is square with the building surface. Interlock formers F2 and F4 over the crutch and glue them to the pine cross members. It might be well to insert the 3/16'' x 3/4'' balsa step block through the crutch since it would be difficult to insert it after the sides are glued on.

Place the two sides on edge on the plans, line up and glue to the ends of the pine blocks, formers F2 and F4 and the step block, forming rigid box. Allow the glue to dry thoroughly then bring the forward ends together, cerf if necessary, and glue in the bow spacers. Put in the 3/8'' square balsa transom block. It may be planed to shape either before or after being installed. Add all other cross members at this time.

The grain in the side skin runs forward and aft. On the top and bottom the grain runs athwartship — that's cross-wise to you airdales. When putting the bottom skins on, it is imperative that the glue joints, particularly at the step, be water tight. Follow the installation of the bottom with the sides. Before installing the top, go inside and lay a bead of glue along every seam where the skin meets a longeron or cross member on the sides and bottom. Don't tell me it isn't necessary — this old sea dog had one float pop a seam and it is extremely disheartening to remove a float and hear the water sloshing around inside. How do you get it out? How do you dry it out inside when you do?

Add the top skin, using strips of masking tape to assure a good glue joint where the skin comes down over the transom block. This part is always submerged when the plane is in the water.

Painting is, of course, an aid in waterproofing, but don't depend upon the paint to fill a badly glued seam — the first twist or bump will open it enough to let the water pour in. Why does the water want to go in there anyhow? The float is full of air, that should keep the water out. Perhaps there is a physics law to explain the whole thing. I was going to put a funny in here, like Gumperson's Law, or Allen's Axiom, but a possible reason dawned on me. There it is, the float, sitting on the hot sandy beach waiting to go in the water, the heat from the ground warms up the float, the air expands inside, forcing some out through the screw holes and other minor imperfections. Then, when you are ready, you put those hot floats in the cool clear water and the air is cooled and it condenses, creating an area of low pressure inside the float. The same principle that allows your plane to fly in the first place forces the water into the floats like sipping cider through a straw.

Would a pressure relief tube in the top of the float stop this? While we are being ridiculous, how about putting a bike tire valve in the float and pressurize the interior of the float — as long as the air is busy trying to get out, the water can't get in!

There is a possibility of using only two floats, however both of my old-timers — a Buzzard Bombshell and a Playboy Sr. — have such long tail moment arms, they will sit horizontal on the workbench with floats, but put them in the water and down goes that tail, necessitating the small rear float. If you moved the floats further back and your plane has a short moment arm, you could probably get away with only two floats. The general installation rule is, the top of the float is parallel to the thrust line. This makes a nose high landing necessary or you will find that it is possible to stub a float toe and flip the plane. Be sure to flare the plane slightly as you land.

When applying the floats to my planes I used the front bracket for the regular landing gear wires and added a structural member in the fuselage more or less above the rear bracket. An ''N'' strut may be necessary to stop forward and aft rocking. A 1/8'' rod through the second hole in the forward bracket acts as a spacer bar to prevent the floats from splaying out on landing.

Much to my surprise, it was determined during a picture taking session that the floats

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could be removed and wheels installed, ready for flight in just under 4 minutes. It takes a shade longer to go the opposite direction. Only 2 modifications in the wheel version were made for floats and they hardly show.

Now that you are ready to fly, did you plan ahead? Is the lee shore available to you? If you have to land dead stick out there, the plane will always float downwind, but can you get there? Carry a fishing pole with you — a lead weight may be cast over your plane then it may be reeled in. A gang hook or grapnel could be used but would be hard on the MonoKote! To get a fishook out of a wing tip, do you cut the eye off the shank and force the barb on through?

Maintain thy altitude lest a wave come up and smite thee. □