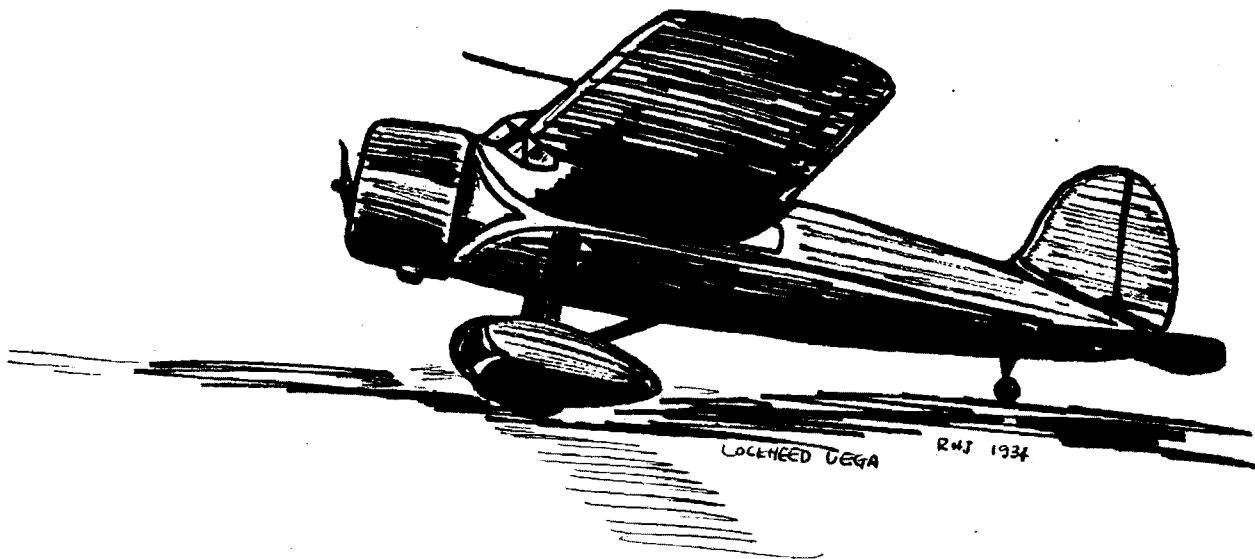
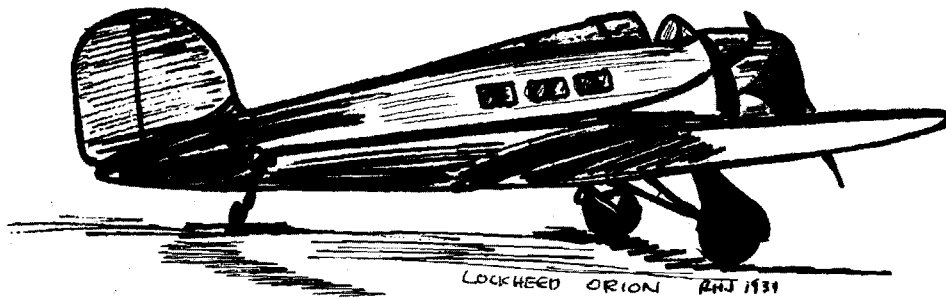


FLYING ACES

ISSUE #121-47 May/June 1988

Club News



2.

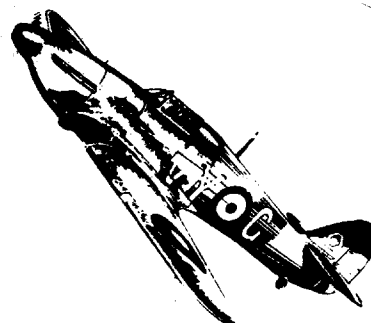


POSTAL CONTEST

The Comet Postal Contest is still going on Skysters, so get those crates of yours into the ozone. All you have to do is fly your Comet scale model (rubber powered), send in the time, date of flight and the name of the model to GHQ. Every time you better the time with that model, send in that time. You may enter as many times as you want with as many models as you wish. Models must be built from a current Comet kit or from an old time Comet plan.

Contest ends on October 30, 1988. Your flight times do not have to be from a contest. You may go out to fun fly and take your Comet model along and time your flights for the contest.

<u>PILOT</u>	<u>PLANE</u>	<u>TIME</u>
1. Vic Nippert	Stinson SR-7	272 sec.
2. Phil Cox	Corbin Super Ace	153 "
3. Dan McDonald	Taylorcraft	102 "
4. Terry Hoover	Curtiss Robin	89 "
5. Gordon Roberts	Piper Cub	76 "
6. Dan Briehl	Taylorcraft	66 "
7. Dave Stott	Great Lakes Trainer	62 "
8. "Padre" Anderson	Mr. Mulligan	59 "
9. "Padre" Anderson	Fairchild 24	58 "
10. "Padre" Anderson	Puss Moth	56 "
11. Mike Zand	Taylorcraft	55 "
12. Bill Jennings	Piper Cub	34 "
13. Dave Stott	Navy Racer	32 "
14. Dave Stott	Curtiss Airmail Bipe	27 "
15. Jack Swaney	Curtiss Helldiver	23 "
16. Dave Stott	Hawker Hurricane	23 "
17. Dave Stott	Aeronca C-3 (floats)	20 "
18. Jack Swaney	Curtiss Jenny	18 "



If the box on the right has an "X" in it, it is time to renew your subscription. Cost is NINE DOLLARS per year in the United States and Canada. Overseas cost is TWELVE DOLLARS. Six issues, published every other month. This is your last issue under your old subscription. Send to;

FLYING ACES NEWS
3301 Cindy Lane
Erie, Pa. 16506



Bill Hannan and his artists, Kuhni and Kau, missed a few, fellow scalers. Probably because they ignored sources like ads in the back of farm implement catalogs, sketches in the margins of catechism notebooks, and your author's articles in the Flying Aces Newsletter. For instance:

1. The 1923 Trivial Pursuit--March/April, 1984 FAC News, Page 15;
2. The Helio Mutt-1--September/October, 1984 FAC News, Page 16;
3. The S.B. Dummy--March/April, 1985 FAC News, Page 18;

The only reason these aircraft are obscure, yet, is that color photos and three-views do not exist.

For years these proof-of-scale documents have legitimatized rare, obscure and questionable aircraft. I.E.:

1. The Fike E--Apparently the only color photos in existence are the property of a Canadian FACer.
2. The Lacey M-10--The prot was built by a scotch English man to evade tie-down fees. So why do Lacey models carry FAA registrations?
3. The Black Bullet--On July 1, 1984, the C.D. at the CFFS meet told the author, "There is no Black Bullet." So where did Dick Bennett get the one he had at the FAC Nats Mark IV?
4. Several of Don Srull's recent entries.

Another worthy subject is the Wyre Sport.

In the winter of '48, Guy Wyre of Shoe Tree, Maine, tired of model planes and decided to go full-sized. On a stormy Monday, Mr. Wyre sat staring at his work bench. Suddenly, inspiration!

Before him lay Ed Lidgard's Comet plan of the Allied Sport. He scanned it, reached for his scale and calculator, sharpened his Eberhardt Faber and began ciphering. He reasoned that if all dimensions were increased 24 times, it would be about right. Wood type and sizes would have to change, since balsa $1\frac{1}{2}$ inches square and 12 feet long was unavailable. Sitka spruce would do.



The Comet plan was enlarged 24 times on the shop floor with miner's chalk.

Material and tool gathering filled the next weeks. Then, in January of '49, construction began. A ventilator was installed in the shop wall to stop the ringing in Guy's ears. (Ambroid is heavy stuff in closed spaces.)

Some modifications were worked out as construction progressed. The motor peg was omitted and a floor and sling were installed in the cockpit. The forward section was hammered and riveted Dural. Cover presented some problems. Jap tissue and coverite were too expensive, so Wyre opted for Butyrate over sanforized cotton.

Controls were rigged a la U-control, with a long aluminum tub bushed to the elevator horn. Aircraft inspectors questioned the two cables entering the wing tip, so they were cut and the holes patched.

By now the airframe grossed over 800 pounds, and an engine hadn't been found that would fit the exhaust ports in the lower nose cowl.

Since the Farmall and the cutter bar wouldn't be needed till spring, the engine and power transfer gears were requisitioned and fit to the task of getting the power from the bottom of the upright Farmall engine to the top of the nose cowl.

Hinges, controls and instruments took more time than Guy reckoned, so farm work was omitted in the spring of 1949.

continued next page.....

4. continued from previous page...

Weeds grow, no matter what nobler tasks are adopted, so in August, when the Wyre Sport was ready for taxi tests, the weeds were waist high in the meadow. Undaunted, Guy Wyre fired it up, climbed in and firewalled it. The Farmall belched blue smoke as the oak prop hit the weeds. Small animals and birds scattered as the Wyre Sport eased forward. A cloud of smoke, dust and chopped weeds engulfed the house as Guy bounced against the cockpit top and made a mental note to install a harness. Bouncing became buffetting as the tail rose and the prop mowed deeper into the weeds. Then the right gear hit a groundhog hole and collapsed. The prop hit dirt, a shaft snapped and the Farmall squirted hot oil and small metal parts through the firewall. Guy's head hit the panel.

As he sat dazed, the triumphant rattle of the engine still in his ears, Guy Wyre fantacized. In his semi-conscious mist the Sport rose from the weeds, responded well to the controls in a perfect pattern and settled to earth before fame was plucked away by that groundhog.

In an interview with Guy Wyre in 1964, the author was shown the Wyre Sport as it sat in the barn beside the cannibalized Farmall and cutter bar, propped up on a saw horse. When asked if his plane ever flew, Wyre answered, "Isn't that the biggest Sport you've ever seen?"



The up-sized Guy Wyre Sport itself was never modeled because every plan and three-view strongly resembled Comet's Allied Sport.

Mr. Wyre's old Comet plan eventually found its way to Braintree, Ma. from which copies are still available. But that is the Allied Sport, not the Guy Wyre up-sized version. It's obscure, yet.

May you find color photos,

F.S. Bilder

P.S. Guy Wyre took his last flight in June of 1984. He's now shuffleboard champ at Golden Years Community Center in Geritol Park, Fla. The barn has burned down and a shopping mall was built in the meadow.

F.S.B.

Fellow scalers; Here's another page for your obscure, but not forgotten, aircraft files.

FLYING ACES MODEL LABORATORY

We have three model plans for you Skysters this time! Keep sending them in for us all to enjoy. We can never satisfy the appetite for plans of the FACers.

We have areal good flying Hawker Typhoon No-Cal sent in by Ray Marshall from up in CANADA. Ray says she does over two minutes under a 23 ft. ceiling!

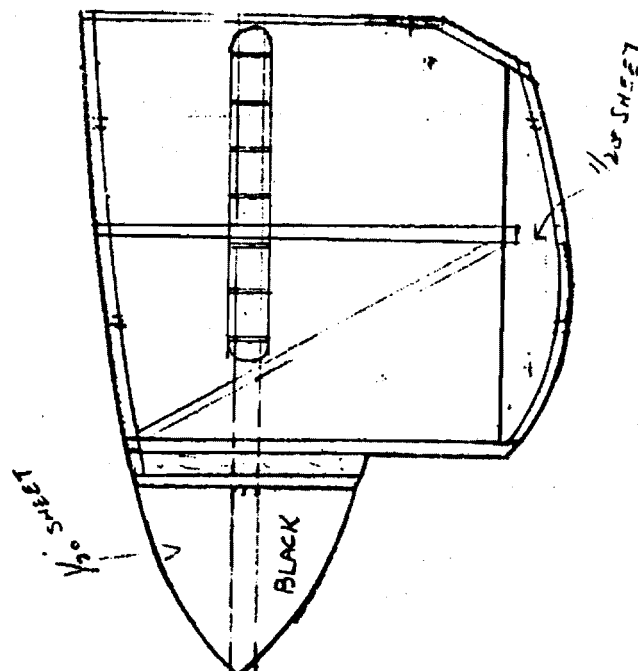
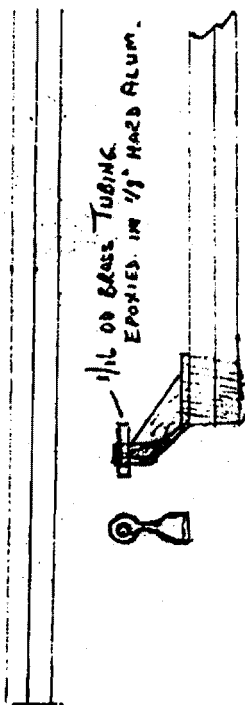
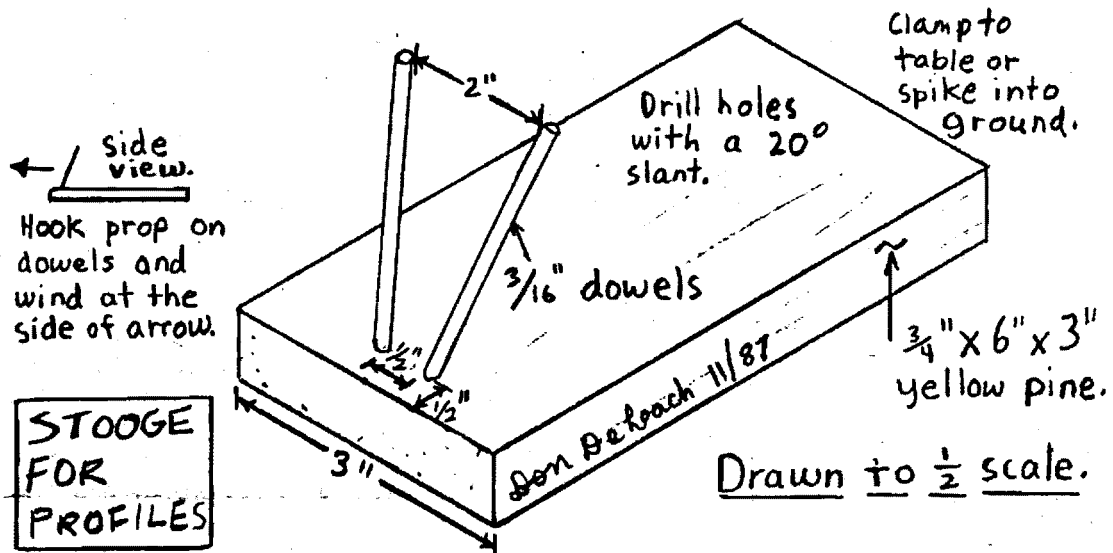
Tom Nallen, Jr. gives us a neat little Heath Parasol that he designed way back in high school. She sure looks like a dandy. Dress her up with a blue fuselage and struts, and make her wings and tail feathers silver. Should be a good one for indoor flying this winter.

Our third plan is one of Dick Howard's works. This time Dick opted to do one with only one engine. What's the matter Dick, are you running short of good rubber? Anyway, it should make a fine entry for the Greve races, all done up in her red color all over with a black outline around the gold lettering.

by
Don DeLoach

Here is a neat design I copied from one of the modelers in our area. It's an isometric view of a winding stooage for profile models. It works quite well for most single motor types. I do need to note as you study it that low wing models are wound rudder up, while high wing models are wound rudder down. You will understand this quickly if you build one. Also, the model needs support in front of the stooage.

Hats off to Don for this little gadget that should make flying easier for us in the No-Cal event. (ed.)



COVERING - GREEN WITH BROWN
CAMOUFLAGE

Answers to Questions I Really Got Asked

Mumbo Jumbo #32 from the pen of the Glue Guru

Salutations, disciples! Ah, the recent Nats! I will never forget the offerings of well ripened fruits, showered upon me by adoring disciples, heedless of cost. Even as I satisfied my hunger, came the gentle rain of spittle, sufficient to tie many rubber motors. Yes, I am now rich in all the necessities. Though tempted to simply sit back and bask in this outpouring of love, one must shoulder one's burden and struggle on. Below are questions really raised at the Nats. Though edited and combined, they are, at the core, genuine. The answers are straight.

Q: What are your qualifications for sounding off on aerodynamics?

A: I have the standard B. Aero. Eng. and M. Aero. Eng. degrees followed by a generation of aero experience ranging from that of a very junior wind tunnel engineer through the position of Senior Research Scientist investigating low Re oscillating flow at NYU. With the closing of the engineering school (the university proper continues) I switched over to the fluid mechanics aspect of certain diseases and now work as part of a medical research team.

In short, my credentials are OK. However credentials alone have little to do with the successful reading of aerodynamic tea leaves. None had better credentials than Prof. Langley or worse than the Wrights and yet, as it turned out....so enough of credentials.

Q: In dealing with murky issues, why don't you just present the evidence and let us make up our own minds?

A: This sounds fair enough. The catch is that most of the evidence is usually of a highly mathematical nature. Unless the modeler has a certain background, it will all seem like gibberish. Ordinary common sense is of limited use here. For example, zoom happens to result from too much stability, not too little. On the face of it, this statement is nonsense - yet it happens to be true. Unfortunately the proof falls within the area of partial differential equations. If you know about that stuff, fine. However, few do. How then is the reader to make a judgement?

By simply announcing, or denouncing, competing tech views as right or wrong, as inspired or rubbish, the reader is brought into the picture with the least possible sweat. There is the obvious risk here that I've misread the tea leaves - well, that's life!

Q: I am an experienced modeler with a considerable R/C background. Tests that I have run, plus a full scale reference that I have seen, have convinced me that tail thickness has a great deal to do with stability. Yet you claim otherwise. How come?

A: The establishment view is given in "Aerodynamic Characteristics of Tail Surfaces" by Silverstein and Katzoff, NACA Tech Rept #688, published in 1940. It consists of a comparison between theory and wind tunnel data for some 17 different tails tested in the US, Japan and Russia. Thickness in the range 6% to 13% was varied along with planform, cut-outs, hinge location, etc.

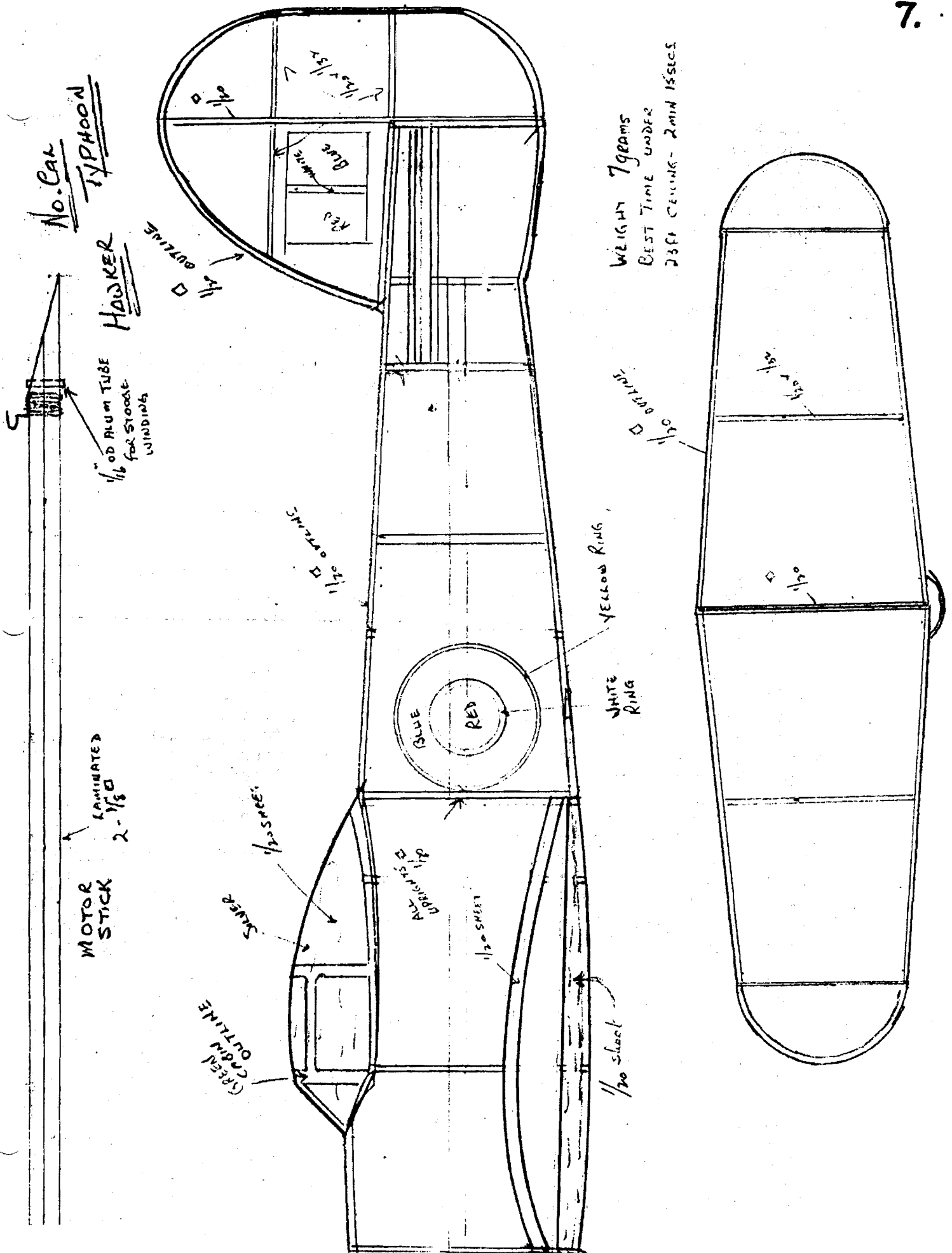
If we employ the generation of a large normal force as a measure of "goodness", no real tail performed as well as a theoretical thin airfoil; actual lift slope values ran about 10% less for all tested tails, regardless of thickness. If we employ elevator effectiveness as a measure of "goodness" there is no perceptible difference (their fig. 26) between the thickest and thinnest tails under test.

So far tail thickness amounts to little or nothing. However if we employ the slope of maximum normal force with respect to elevator deflection as a measure of "goodness" (their fig. 27), an increased tail thickness does have one practical benefit - when the elevator is deflected through a given angular change, a thicker tail is capable of supplying a larger change of normal force than a thinner tail.

In practice, given an R/C model with either a limited throw or a weak servo, this thick tail feature may be useful. It may also be generally useful in the performance of crisp aerobatics.

However in free flight scale, the implication is merely that thin tails have to be deflected (or warped) a bit more than thick ones to achieve a desired change. That's about it.

In short, in terms of our thing, tail thickness is not significant. Again, this



is the establishment view and it comes with an impressive amount of support. I believe it. Still, if anybody out there has other views, the Col is always looking for stuff. Just send it in.

Q: I'm using a trailing edge flap (wedge) to hold up the left pinion under power. The model goes well enough, but only under power. Once into a right circling glide, the model spirals in. What's wrong? (model is a Walnut, WWII in-line fighter with realistic dihedral)

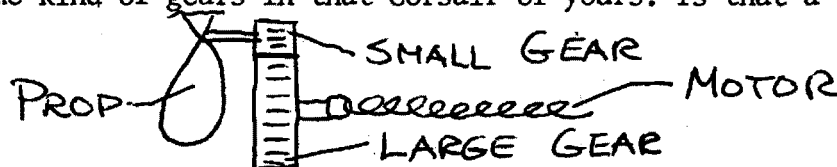
A: The catch in using a flap or wash-in (no difference) to hold up the left pinion under power is that such models are rarely happy to circle in the opposite direction. In other words, if you have arranged for "more lift" from the left pinion, it is most unwise to let the model go to the right, either under power or in glide.

Now it's certainly true that "crossover" flight patterns are routine for straight performance models. However, at best, scale models are sadly deficient in spiral stability. Should the "more lift" pinion find itself on the outside of a turn, thereby moving faster than the "less lift" pinion, it will likely roll the model into an ever tighter turn, with a spiral dive as the most likely result. To prevent this, it is usually best to keep the "more lift" pinion on the inside of all turns - powered or gliding.

In short, if the left pinion is modified to supply "more lift" - go left, left.

Q: You've got some kind of gears in that Corsair of yours. Is that a "speed-up" arrangement?

A:



This particular arrangement is sometimes (mistakenly) referred to as "speed-up". It doesn't really. The error comes from viewing the rubber motor as something like an AC motor, that is, an essentially constant speed motor. If the input was truly constant speed, the gears would indeed be acting to "speed-up" the prop.

However rubber motors are really springs, not motors, and they couldn't care less about preserving constant speed. Instead rubber motors will deliver a certain value of torque as a function of their thickness and the turns remaining to be spent. When rubber power flows through the gears shown, the effect is to reduce the torque delivered to the prop by the ratio of the gear diameters. Thus 2 to 1 gears will cut the prop torque in half, as compared to the straight rubber motor power output. The effect of cutting the prop torque is to slow down the prop RPM. Therefore "speed-up" gears, when hooked up to a rubber motor, actually act to slow down the prop.

To prevent the confusion inherent in this odd situation, it is best to call this particular gear set-up a "torque reducer".

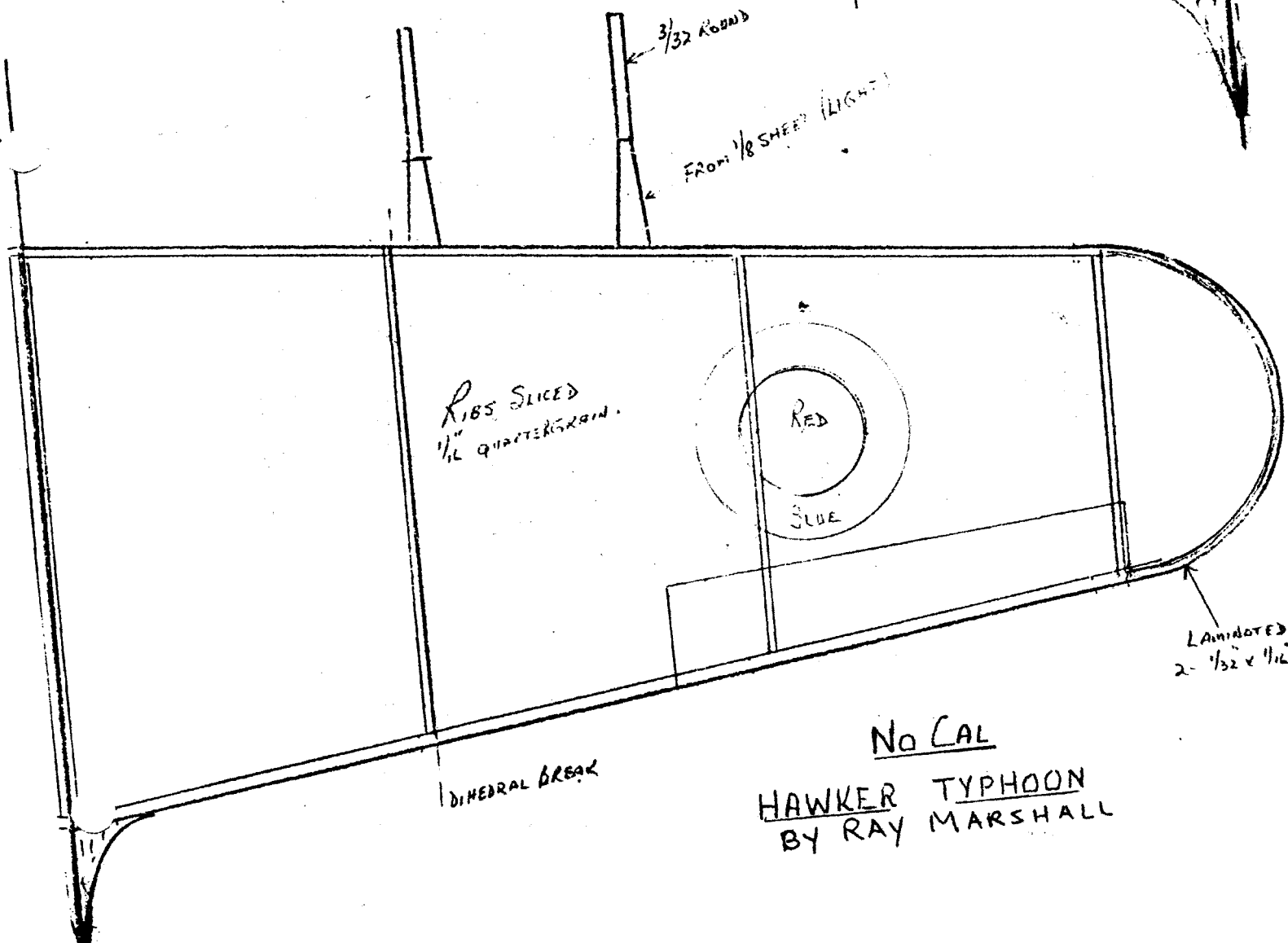
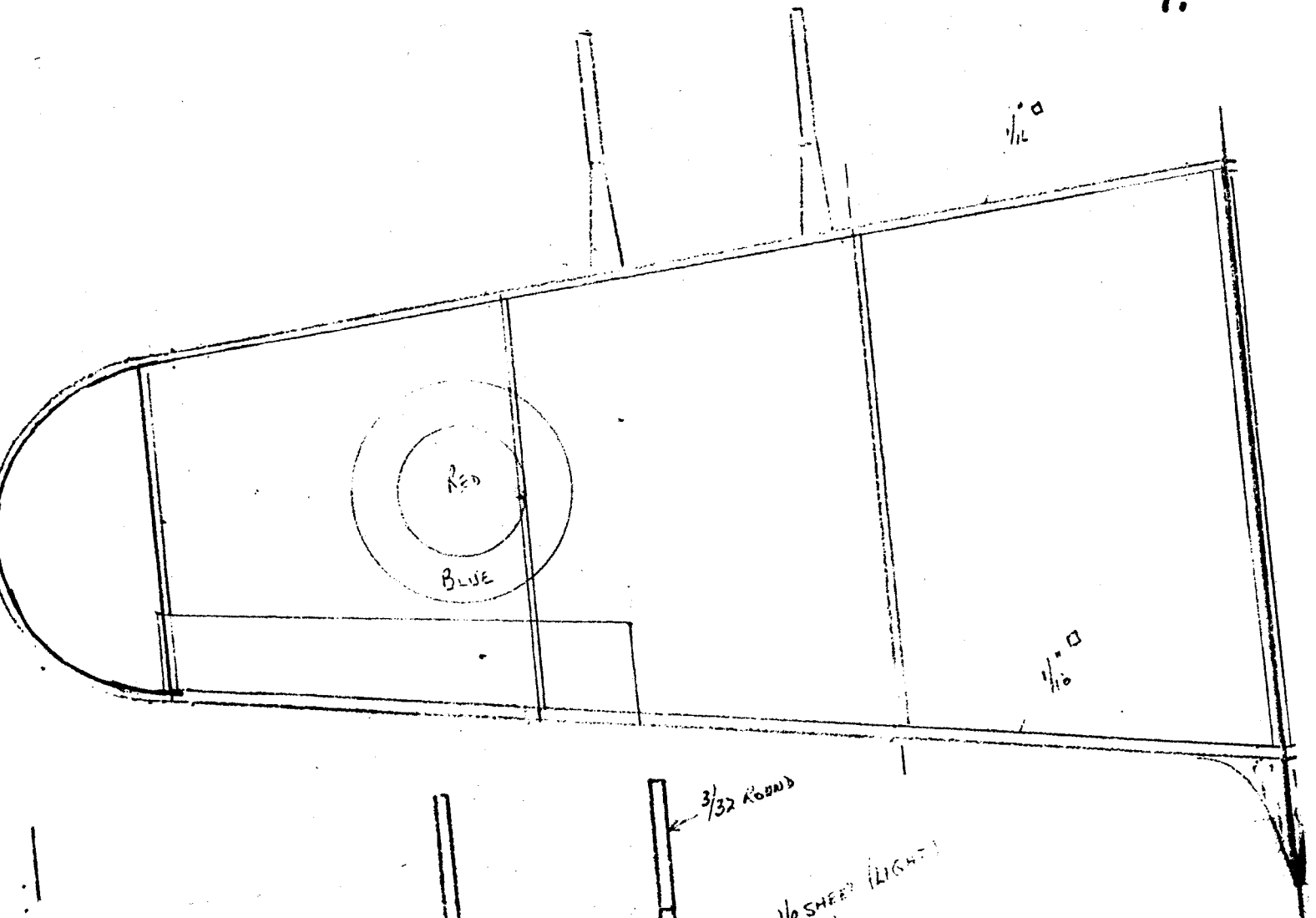
Q: You can call 'em mashed potatoes if it makes you feel better! What counts is what do they do for you? What good are they?

A: By reducing the torque to the prop, the gears permit the use of an extremely thick motor. As potential flight time goes up with rubber weight, a thick motor offers the possibility of more endurance - if it can be matched to the prop. The gears do the matching.

Q: That other geared guy (Wetherell) has two motors in his DeHav biplane and yet you've got only one in your Corsair. How do you figure out whether you need one motor or two?

A: My guess is that two equal heavy motors are worth about 50% more duration than one. The catch in two motors is that it isn't easy to arrange for external winding or to complete winding in the short time permitted in mass launch. As for more than two motors, I've got doubts; diminishing returns begins to severely reduce the profit; complexity begins to get out of hand. Still, for those with guts, Roy Moore reports trying as many as six motors, all geared together in one model.

However I don't recommend it. Squeezing the last possible second of duration out of gears seems pointless to me. Two motors are quite enough. The real profit consists of flying configurations that, lacking gears, are hopeless. Bleriot XI, anyone?



Dihedral Break

No CAL

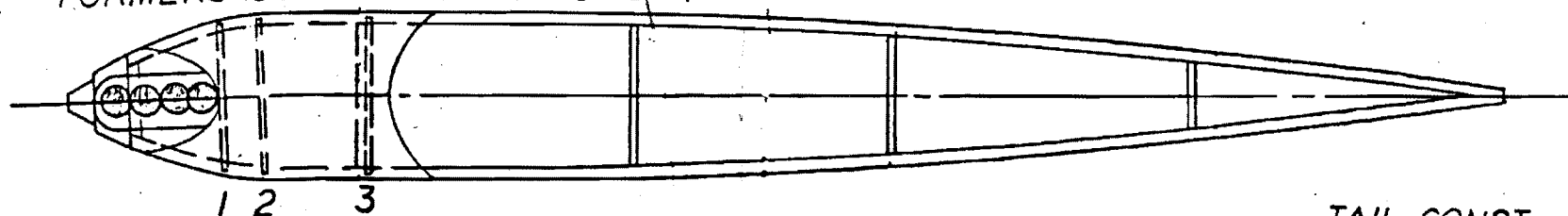
HAWKER TYPHOON
BY RAY MARSHALL

Laminated
2- 1/32 x 1/16



FORMERS COVERED WITH 1/32 SHT.

ALL CROSSPIECES 1/32 X 1/16
EX. AT NOSE WHERE 1/16 SQ.



TAIL CONST.
ENTIRELY OF
1/32 SQ.

DUMMY ENGINE
CONST. FROM PAPER
TUBES, THREAD, &
SCRAP BALSA

TYP. RIB

1/32 GUSSET

ALL UPRIGHTS 1/16 SQ.
EX. THOSE FROM FORMER 2
TO THE RUBBER PEG

1/16
SHT.

LONGERONS 1/16 SQ.

1/16 GUSSETS

1/16 L.G. LEG

LG. BRACE STRUTS
1/64 ROUND BAMBOO

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HEATH "PARASOL"

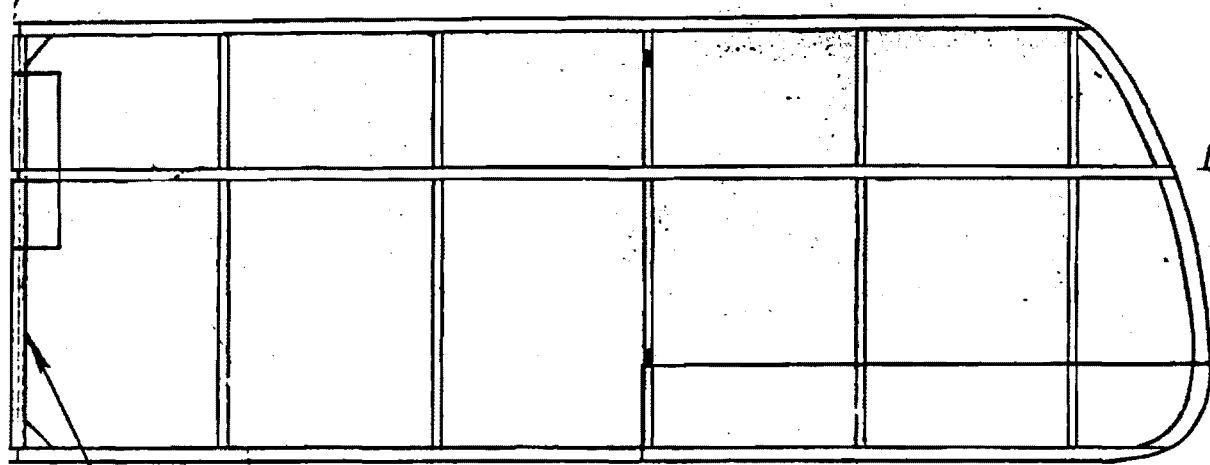
DESIGNED & DRAWN BY:

1976

TOM NALLEN JR.

1/16
GUSSETS

L.E., T.E. & SPAR 1/16 SQ.

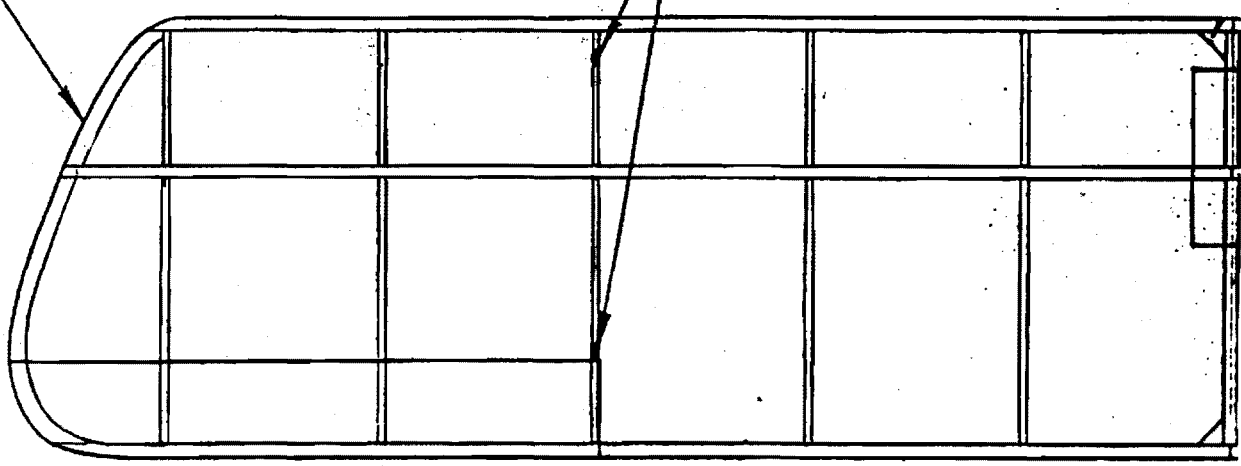


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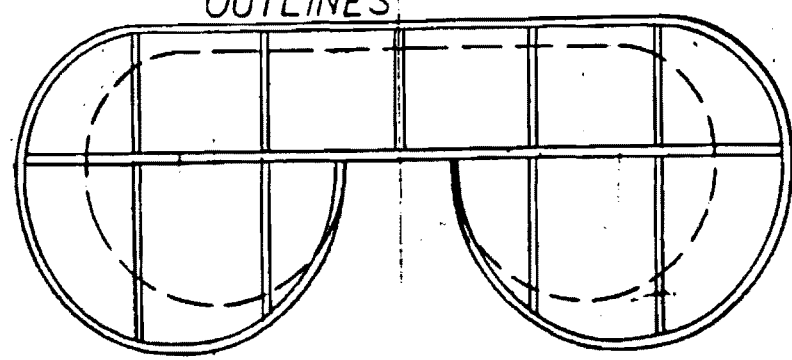
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1/32 TIPS

SHADED OVALS ON
WING & FUSELAGE
DENOTE STRUT LOCATION



DOTTED LINES INDICATE SCALE
OUTLINES



TOM NALLEN CO.**SKETCH NOTES AND AERO PRINTS**

August 29, 1988

Dear Lin,

Hope this finds you and Juanita recovered from Geneseo. I'm not sure that I ever will. That gathering of eagles had to be the best of all time. We were so busy seeing old friends and new airplanes that we just couldn't fit in everything we wanted to do. Most of those models made us feel like we'd better go back and start all over and see if we can't get it right this time.

Since 1978 we've worked as a volunteer on an exhibit at the Springfield Museum of Science dedicated to early Springfield aviation. That largely translates to the Granville Brothers and their associates. We've had a lot of fun and have gathered and saved a lot of stuff that would have otherwise been scattered all over the place and probably lost. Though small, the exhibit has a lot of good material that will gain in significance as the years pass.

We uncovered the Bayles Memorial Trophy that Maude Tait had in her Springfield home for 40 years. The Speed Holman Trophy and the Niagara Trophy that Russ Boardman won in races and aerobatics competition in 1931 flying the Model Y we found down on Cape Cod, covered with hay and stuff, in his daughter's barn. Bob Hall gave his Shell Cup and General Tire and Rubber Trophy that he won in the Model Z at the 1931 races. Maude Tait's Aerol Trophy is there, too along with a her log book opened to the page where she won the Aerol. It says simply, "my race, and won".

Anyway, I recently did these cards and enclose a set for you to look over and hopefully, use. The enclosed letter is a copy of what I've been sending to museum gift shop buyers around the country and kind of explains the motivation. If you feel that it is apropos, and policy permits, I would appreciate mention of them in the F.A.C. News. There aren't big bucks in the cards, but I'd like at least, to recover my costs. I think most FAC birdmen are aviation historians as well as model builders.

Also included is kind of an outline of information about the cards that may be useful. Please use the cards, Lin. If I can't move them, then a few of us are going to have to write a hell of a lot of notes. Whatever you can do will be appreciated.

Cordially,



Tom Nallen

SEE NEXT PAGE

Since the time that they were in the air, more than fifty years ago, the Gee Bees have continued to enjoy a high level of popularity among aviation enthusiasts everywhere. The achievements of the small group of individuals who came together at a tiny sod airport in Springfield, Massachusetts far outweighed their number.

Rarely employing more than twenty persons, the little company turned out colorful airplanes remarkable for their innovations and high performance. Working in a climate of severe economic depression, with no government funding or support of corporate giants, they shook the aviation world. Back to back wins in the prestigious Thompson Trophy Races at the 1931 and 1932 National Air Races and the establishment of a new world land plane speed record in 1932 have secured their niche forever in aviation's "Golden Age".

Sketch Notes of Aircraft of the Springfield, (Mass.) Airport, 1929-1937. The notes offer a look at the evolution of the Gee Bees and feature the raceplanes of Granville Brothers Aircraft, Inc. Assortments 1 and 2 @ \$4.50 each (postpaid) from Tom Nallen Co., 17 Peter St., Chicopee, MA 01020. (413)592-3615

Each assortment of cards and matching envelopes, packaged in a vinyl box, includes 6 different pencil illustrations. The subject aircraft were manufactured in western Massachusetts during aviations "Golden Age" by the Granville Brothers and their associates. Brief notations relating to the aircraft illustrated are on each card.

Assortment 1 includes:

First Gee Bee Airplane
Gee Bee Model X Sportster
Gee Bee Model E Sportster
Gee Bee Model D Sportster
Gee Bee Model Z "City of Springfield"
Gee Bee Model Y Senior Sportster

Assortment 2 includes:

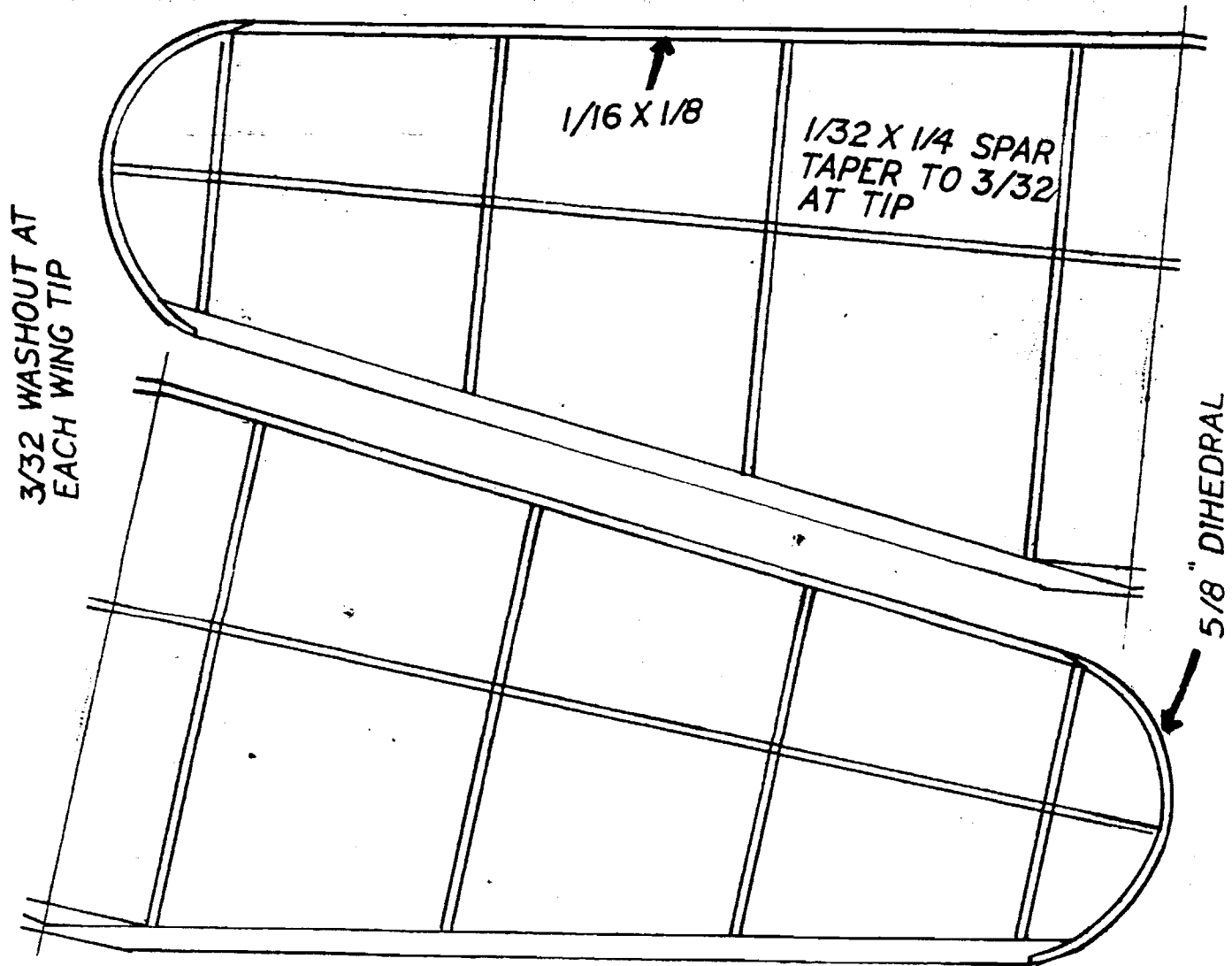
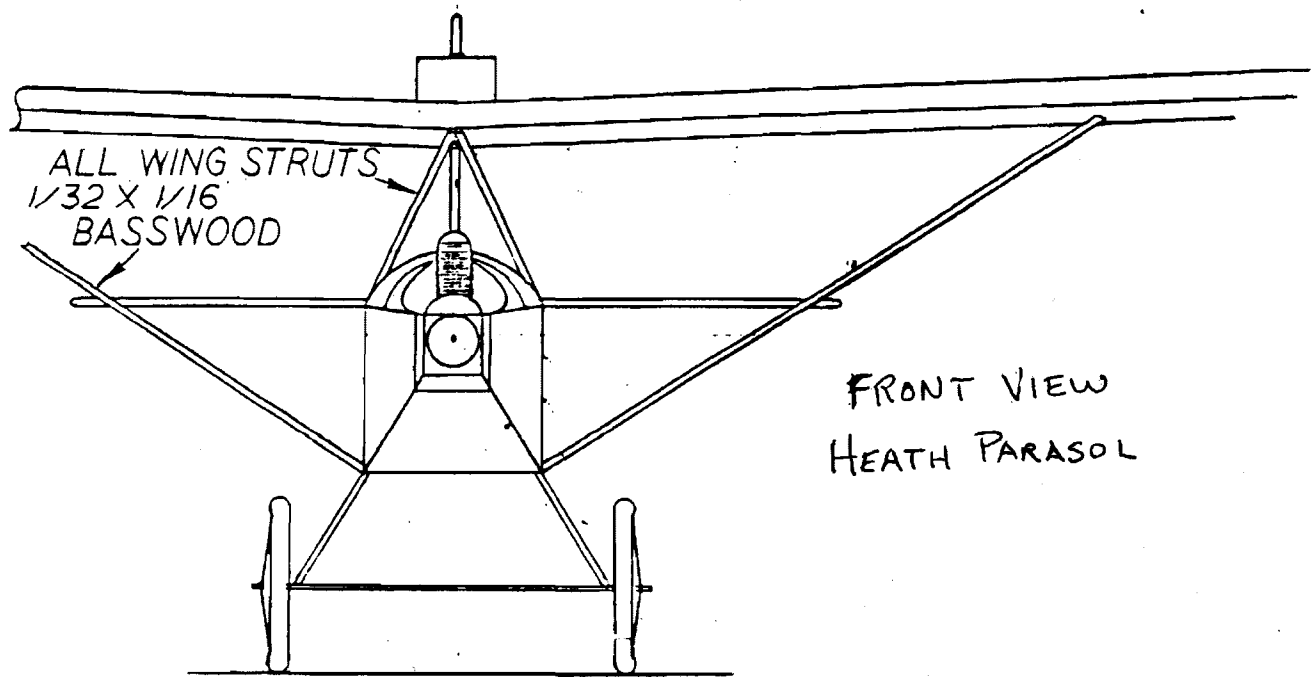
Gee Bee R-1 Super Sportster
Gee Bee R-2 Super Sportster
Hall "Bulldog"
Miller "Zeta"
Gee Bee "Ascender"
Granville, Miller & DeLackner "QED"

Presently they are being sold at the New England Air Museum, the Springfield Museum of Science and other local outlets. We are talking with, and the cards are being evaluated by, several other major museums including the Experimental Aircraft Association and the Antique Airplane Association, Inc.

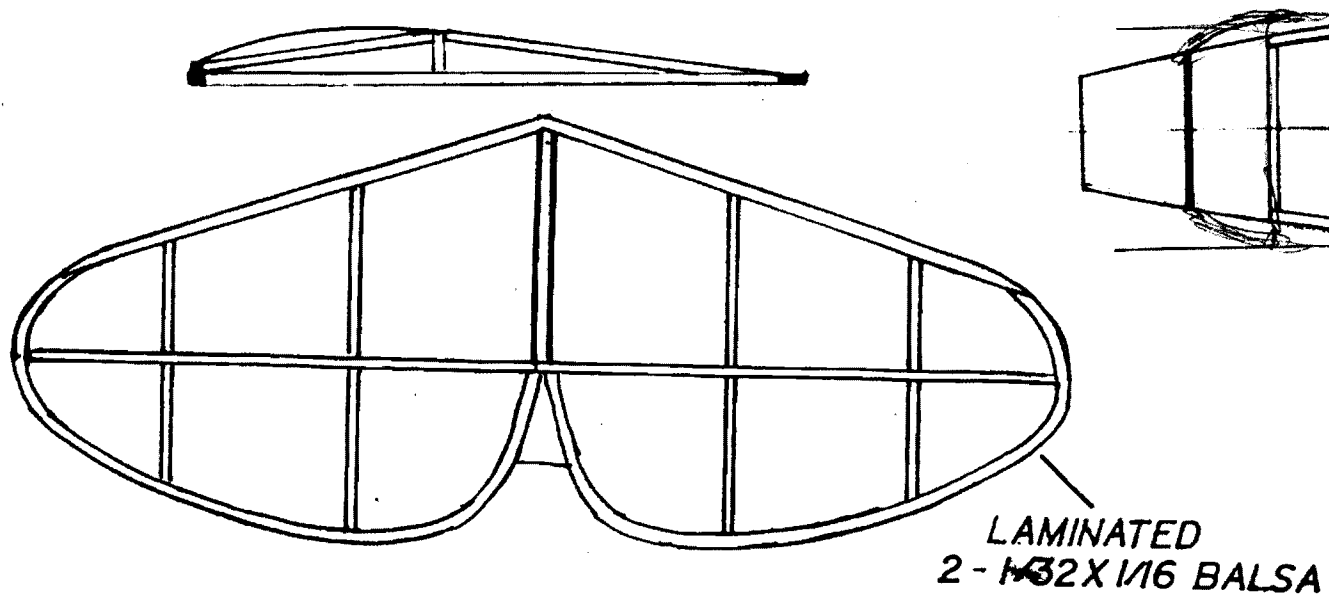
These note cards are superbly done and GHQ highly recommends them. If you do not wish to use them for what they are intended, they will be appropriate to add to your own historic files. Order some!

COVER STORY

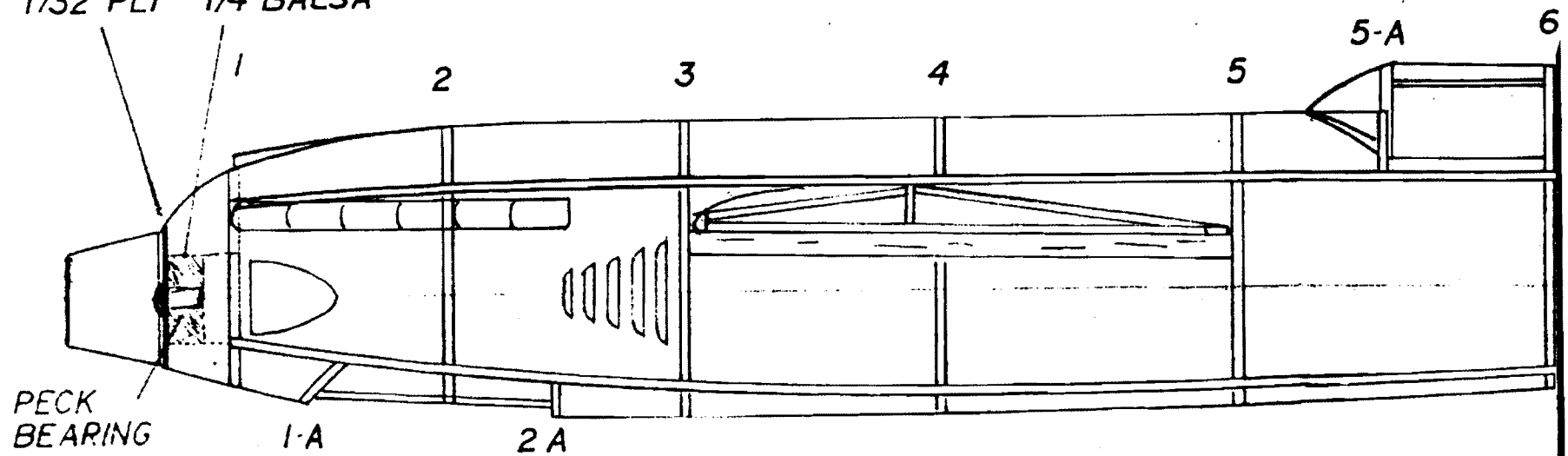
We had to dig way back into the files here at GHQ to come up with this cover. It is a leftover from the previous regime and, according to the initials on the drawings, it looks like it was drawn by Bob Jespersson. If memory serves me correctly, Bob is from Milford, Ct. At the present time Bob is not a member of the FAC. Does anyone know anything of him?



TYP RIB SECTION



NOSE PLUG
1/32 PLY 1/4 BALSA



How many times have you gone to a contest with your models piled into one box? Putting them in the box, at home, with care, was no problem. At the contest, the model that you decide to fly is on the bottom! Never on top! Unless unusual care is taken when the models are removed, something always gets caught and broken. Is this why pitot tubes, antennas, exhaust stacks, etc. are sometimes missing when the model is judged?

From the very beginning, I have been a box collector. Many of these boxes are a little too large and once that 13" peanut is inside, there is a lot of air, or lost space. If you have to travel far to a contest, like I do (Cincinnati to Erie or Lorain) you find that a Chevrolet Caprice can only carry so many boxes. The closer a model fits in a box, the better it is.

There are a couple of things I look for when scrounging for a box or when I am making one. First, it must be made of quality cardboard so that the sides don't get pushed in when you pick the box up. I learned this the hard way. I have a nice Waco SRE scale ship that just fits in its box. The last time I took it out I was dismayed to find the fin broken. The box had been pushed inward, just a bit, and now I have to re-build the fin. Sometimes this can be avoided by strengthening the cardboard around the edges with scrap balsa or better yet, pine or basswood strips. Don't begrudge the time and trouble to do this. After all, you are making a model box that will probably last forever.

The second important feature that a box must have is a top that slides down over the sides of the box. If the top only goes down about an inch or so, it is best to use a large rubber band to hold the lid on or fix fasteners with small rubber bands like this:



I have personal knowledge of box lids with only one inch overhang being blown off when going into or out of the flying site. Score: 1 model destroyed, 1 model damaged.

One of the most common model boxes seen at contests are the underbed type that you can buy at local stores, sometimes for as little as 99¢. I have 2 sizes: $5\frac{1}{4} \times 15\frac{1}{4} \times 26\frac{3}{4}$ and $5\frac{1}{2} \times 17\frac{1}{2} \times 33\frac{3}{4}$. Generally, these boxes are a bit too big. They can be cut down a bit for scale models but peanuts take a little work. An average sized peanut needs only about $4\frac{1}{2} \times 12 \times 13\frac{1}{4}$.

To save cutting and taping, keep your eyes open when you are at the grocery store or a vegetable and fruit store. Recently I was in a local Thriftway store and saw a clerk putting plums on display. What a beautiful plum box! Heavy waxed cardboard with a full depth lid. I got it for the asking. It measures $8\frac{1}{4} \times 11 \times 14$. I built a balsa partition in the box and now have a 2 tiered box that is extremely strong and will hold 2 normal sized peanuts, my J-3 Cub and Pike. I am carrying models and very little air when I go to a contest with that model box.

I used to teach school and got to know the cooks pretty well. The government provides schools with frozen hamburger for the lunch program. It comes in a very strong box with a full depth lid and measures $6\frac{1}{4} \times 15 \times 21$. I use these boxes as storage boxes for models, parts, wood, etc. If you have a contact with a school, you might ask around.

My previous comments have been about peanuts. I also use boxes for scale ships, but this is a tougher problem because of size. I have been able to put all of my scale ships in a box for storage but I may have to resort to the "hanging by the rafter" routine if my inventory continues to increase. The problem with that is dust and possible damage because of carelessness.

continued next page....

17.

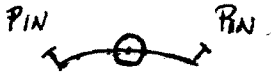
5 X 12 X 22	\$2.09	(a 2 model box)
10 X 12 X 15	\$3.99	(a 2 tiered box)
4 X 17 X 17	\$1.49	(FAC scale w/o LG)
7 X 18 X 18	\$1.79	(FAC scale w/LG)

Sheet cardboard can also be bought for making your own box or lids for boxes with folding lids. (3 X 5 @ \$1.99, 4 X 8 @ \$3.29) I recently used some to make a lid for a nice strong apple box I found.

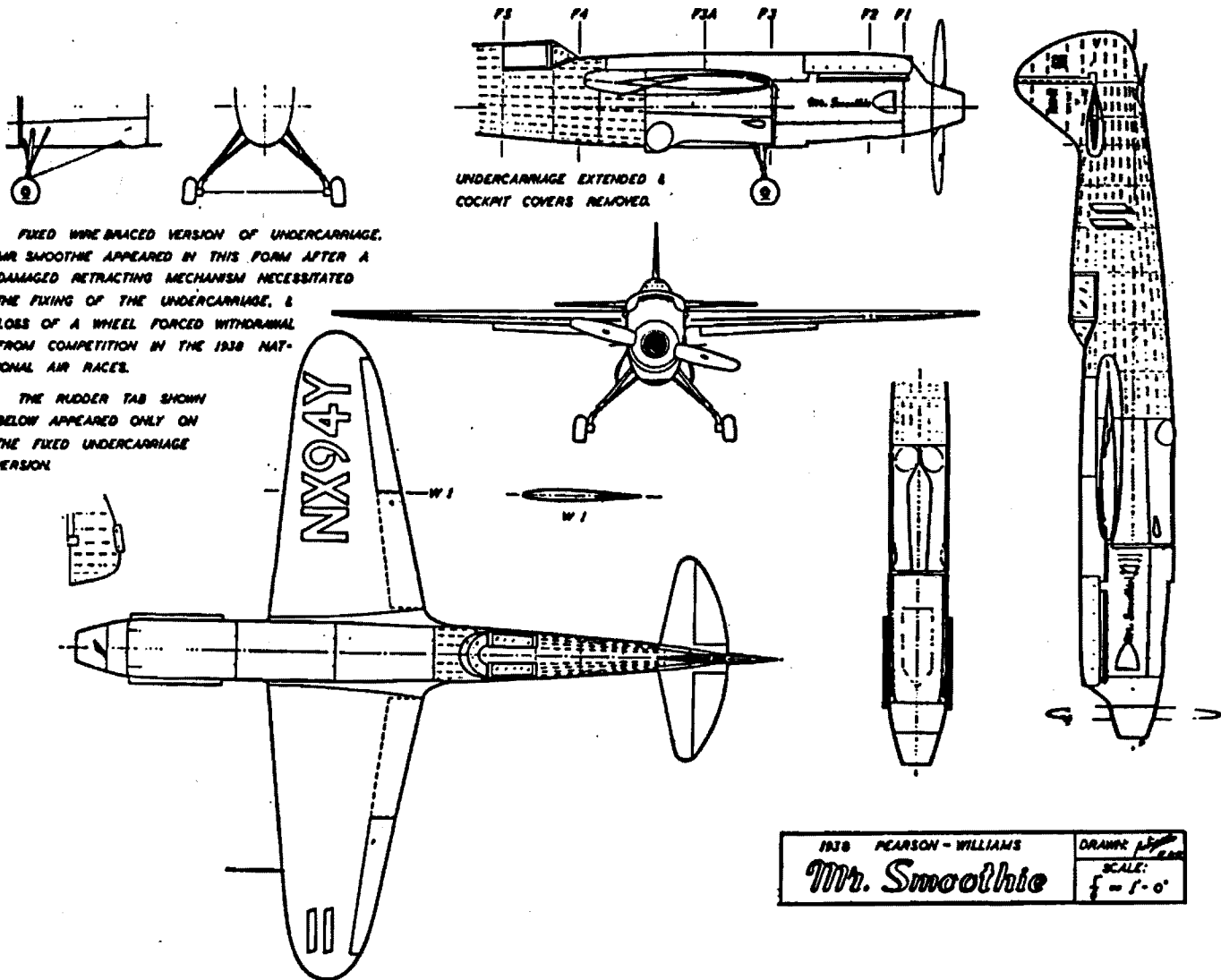
With a little luck or effort on your part you can either find or build a nice form-fitting model box with a slide-on top that will protect those fragile planes. Don't let happen to you what happened to two friends of mine from an un-named foreign country at the Lincoln Nats last year. A heavy object fell through the loose flaps on the top of a box filled with "super" models. Several models were heavily damaged. What a way to go!

I hope I haven't conveyed the idea that I believe one box per model is the way to go since I do like to get two or maybe three models in a box. When I do, each one is fastened to the bottom with a rubber band over one wheel:

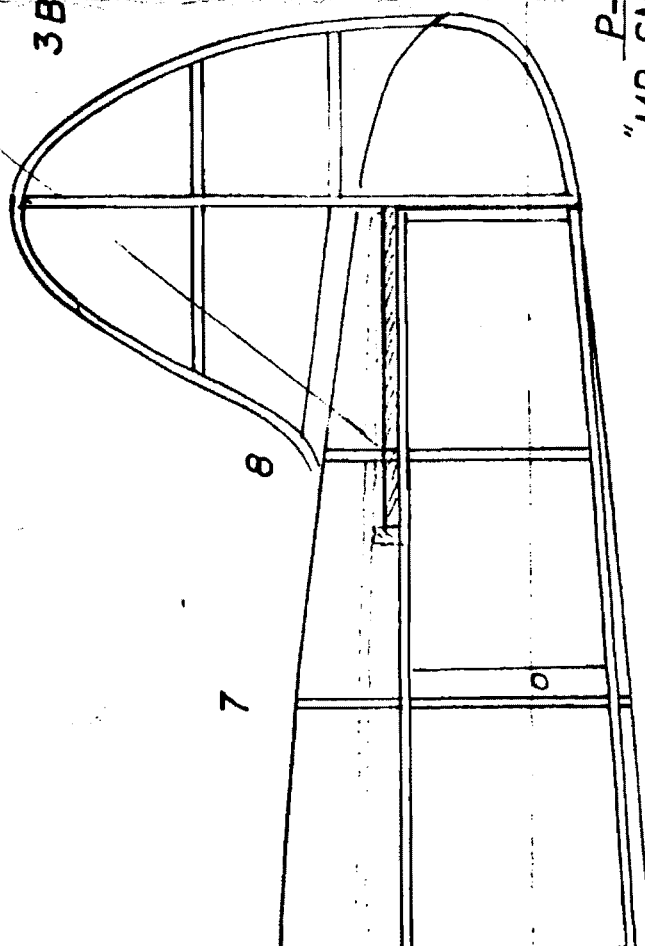
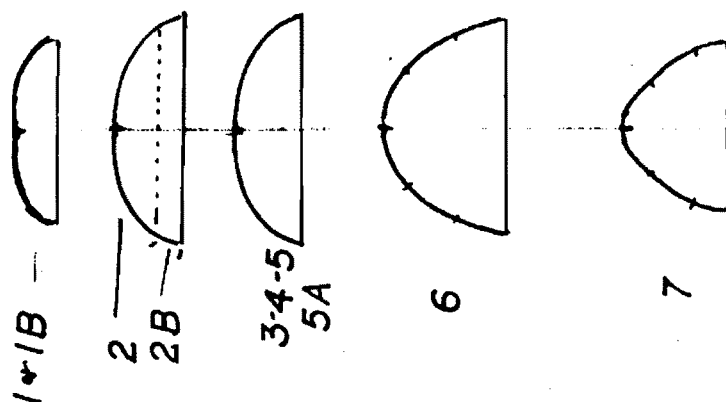
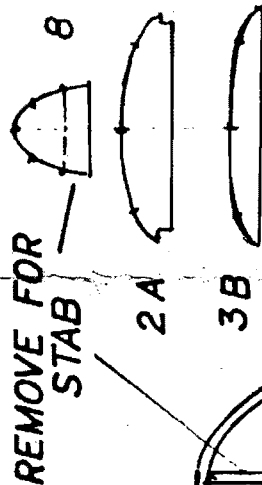
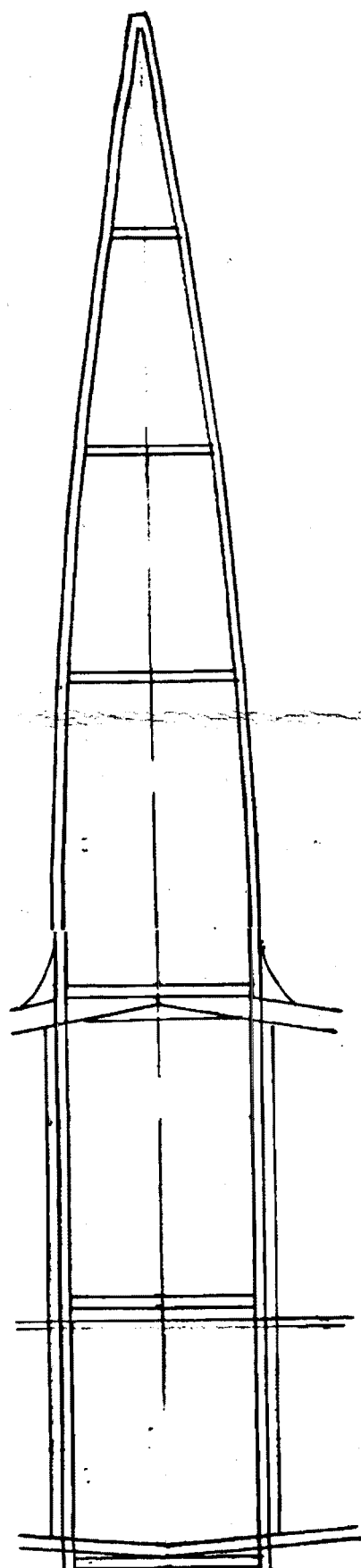
or I use a $\frac{1}{2}$ " wide strip of tissue with pins in both ends. The tissue usually goes over the fuselage between the fin and the wing.



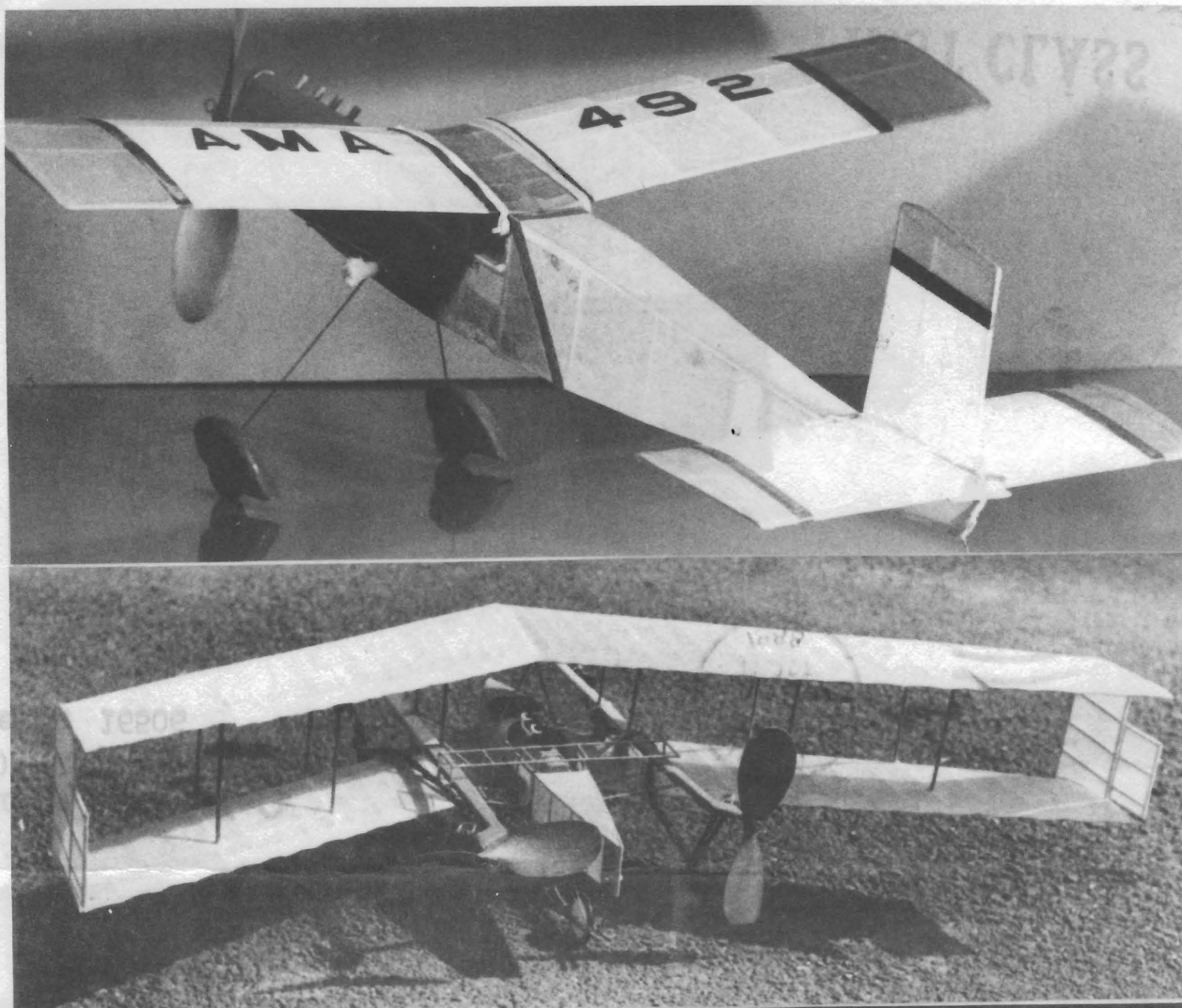
Jim Miller



1938 PEARSON - WILLIAMS
Mr. Smoothie
DRAWN: *[Signature]*
SCALE:
 $f = f - 0'$



P-NUT SCALE
"MR. SMOOTHIE" RACER
DICK HOWARD



Top two photos sent in by Ed Heyn. His Hungmeidter Embryo. Not visible in the cabin is the pilot and a panic stricken passenger. Ed's 1910 Dunne D-5 jumbo rubber model, makes short but spectacular flights.

Bottom photos, on the left is Jim Miller and his Santos Dumont 14 bis and on the right is George Meyers launching his Farman Avionette.