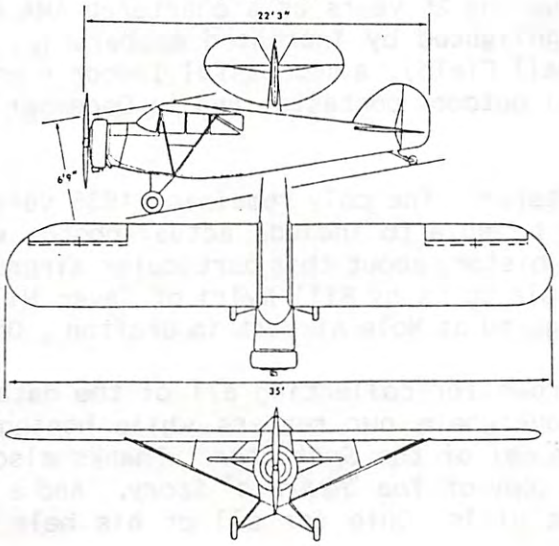
CROSSWINDS No 90

REARWIN - SPORTSTER 7000



CLEVELAND FREE FLIGHT SOCIETY

CROSSWINDS
MICHAEL C. ZAND
5803 EAST ASH ROAD
INDEPENDENCE, OH 44131

CROSSWINDS

THE JOURNAL OF THE CLEVELAND FREE FLIGHT SOCIETY

EDITORIAL COMMENT

ISSUE NO. 90

This issue marks the beginning of the second 25 years as a chartered AMA Club for *CFFS*. Our anniversary year was highlighted by increased membership, the location of a new outdoor flying site (Call Field), a successful Indoor contest at KSU, good flying weather for our local outdoor contests, and in December, an outstanding Holiday Dinner Party.

Our featured subject is the **Rearwin Sportster**. The only remaining 1935 version is still flying and we are delighted to be able to include actual photos with markings and detail, and some interesting history about this particular aircraft. Documentation for N15801 was made available to us by Bill Nyiri of Seven Hills, Ohio. His award winning *Sportster* is hangared at Mole Airport in Grafton , Ohio.

Let me begin by giving credit to Russ Brown for collecting all of the data. I will try to organize it so as not to overwhelm our readers while hoping to inspire you to construct a truly scale model of the *Sportster*. Thanks also to club member John Grega for providing the copy of *The "Rearwin" Story*. And a big **THANK YOU** to Mr. William Nyiri of Seven Hills, Ohio for all of his help and encouragement with this project.

Recently Flying Aces News printed a plan for the *Sportster* with 16" wingspan by F. Baecke. For your convenience Crosswinds is including the *Hi-Flier* plan which is now out of print. This version of the model is a little lighter and needs the enlarged stab.

Did you know that NC17011 (the *Hi-Flier* kit subject) was one of fourteen Rearwins that operated in South Africa in 1936? During that year Rearwin built more, sold more and exported more airplanes in the $2000-5000 class than any other American manufacturer.

By the time you receive this issue of Crosswinds the **Annual Indoor Contest** at Kent State University will be history. This will be our third contest at this excellent site and we hope to be able to hold this event every year. We wish to thank again our sponsors for the KSU Contest: **PARMA HOBBY, CGS AVIATION** (Chuck Slusarczyk), **CLEVELAND AEROMODEL SOCIETY**, and **DAVE DIELS ENGINEERING.**

Those of you who live in the Columbus, Ohio area should check out the *OHIO History of Flight Museum* at the Port Columbus Airport. Exhibits feature Ohio manufactured antique aircraft, engines, propellers and personal memorabilia of famous Ohio aviators. (614-231-1300) Hours are:

Mon-Fri. 9a.m.-4 p.m.; Sat.,12-4 p.m.; Sun., 1-4 p.m.

MICHAEL C. ZAND

THE REARWIN EVOLUTION

By the late 1920s jazz was on the move from Chicago to New York. In the early 1930s, Kansas City had became an important jazz center with the broadcasts of the Count Basie Band from the Reno Club. Along with the big band, another survivor of the crash of 1929, the Rearwin Company, moved to Kansas City from the town of Salina,Kansas.

Before the stock market crash during the late 1920's there was a great deal of activity in the field of airplane manufacturing. Airplane building ranged from piecemeal and what have you, to elaborate engineering or no engineering, along with fantastic financing or no available funds. Only the very strong survived and ninety-nine percent failed in 1929. Much of this struggle was watched by an obscure lumberman, R.A. Rearwin, of Salina, Kansas. Although he had no former aviation background, he possessed a strong conviction that a good business man with careful judgement, would be a success in the airplane manufacturing business.

Rae Rearwin entered the airplane manufacturing business by acquiring an *American Eagle Biplane A 101*, which used a surplus OX-5 engine. This was a production version of an earlier design known as the "Bird Wing". This later became the A-129 when the engine was changed to the lighter 5 cylinder Kinner. The nose had to be lengthened to balance the aircraft and it was given the nickname "The Ant Eater." In 1928-29 Rearwin built his first airplane, a biplane known as the "Ken-Royce" named after his two sons. This was powered by a Curtiss Challenger engine. The *Ken-Royce* won many first place events and in 1930 it was the winner of the Colorado Springs Pikes Peak Race. It was considered a fine airplane but its price of $6,750.00 was not commensurate with the times after the 1929 fall. Less than a dozen were built. This was followed by a monoplane based on the *American Eaglet* which was powered by the 3 cylinder Szekely. This new airplane was actually a stretched and refined Eaglet powered by an improved Szekely and was know as the *Rearwin Junior*, 3100. It was a light parasol-type monoplane with seating arranged for two in tandem; normally flown with open sides. A detachable enclosure was available for cold weather. Basically all of the *Juniors* were alike except for the engines installed, so the model 3100 was closely akin to the 3000 and the 4000. Both Rearwin Airplanes and Szekely Motors were feeling the pinch of a declining market so it was difficult to predict what the future would have for the new 3100 and the 4000. Some 20 to 30 models 3000 and 4000 were manufactured between 1931 and 1934 and they were used extensively at the Rearwin Flying School during these years.

The *Rearwin Speedster* was built in 1934. This popular modeling subject had a short history. The first experimental airplane was powered with a 95 h.p. Cirrus hi-drive. It was one of the cleanest stock airplanes of that time, had wonderful handling characteristics and was extremely maneuverable and fast. Unfortunately, the design was plagued with spin characteristic troubles which prolonged the experimental test period for almost four years. Finally the problem was solved by modifying the tail surfaces, but other sacrifices were too great. The design alterations, that were necessary to conform with the spin requirement, resulted in an airplane that had good spin recovery characteristics at the expense of desirable handling qualities in crosswinds. It was now difficult to land because of excessive nose-heaviness as stall speed was approached. The original airplane was far better than the redesigned version and as a result only about twenty airplanes were manufactured and sold.

THE REARWIN SPORTSTER

The *Rearwin Sportster* was designed and placed in production in the middle 1930's. LeBlond powered, they were the most popular airplanes that the Rearwin factory turned out. This design received an approved type certificate and was placed in production promptly. Sports pilots that were forced to fly on a limited budget were very interested in airplanes like the *Sportster*. With them in mind, Rearwin developed the Model 8500 which offered a bit more power and the benefits that more power would introduce. The Model 8500 had a quicker takeoff, climbed at a better rate, cruised a little faster and handled well in the mountainous regions of the west. All of these extras were available for a little more money, making the 8500 a good bargain. When the five cylinder LeBlond engine was upgraded to h.p. as the 5F, the *Sportster* was designated as the Model 9000-L with this new engine and later as the 9000-KR when powered with the new 90 h.p. Ken-Royce engine. Rearwin had acquired the LeBlond engine works in 1938 and renamed the engines to Ken-Royce. The engines were basically the same but continually improved. Model 8500 and 9000-L were very similar to each other except for the engine, but the 9000-KR was modified considerably, especially around the front end. By 1937 the *Sportster* was available on skis and Edo pontoons. This further enhanced its broad utility. A deluxe version with extra pilot aids and other extras was available and it outsold the standard model. The seaplane was popular for export and was shipped to Sweden, Norway and Brazil were in the winter they were flown on skis.

The *Sportster 8500* and subsequent versions were light, high -winged cabin monoplanes with seating arrangement for two in tandem. The earlier *Sportster* was basically a utility airplane, but the 8500 and its companion models (9000-L 9000-KR) were geared to the sportsman. There was weight allowance for extra equipment and any version could be dressed-up with an engine speed ring, wheel pants, an engine starter and night flying equipment.

The company prospered during the years of *Sportster* development even though *Speedster* development was costly. Approximately 250 *Sportster* models were manufactured and sold during the middle and late 1930's. The Model 7000 was powered with a 70 h.p. LeBlond engine; the model 8500 with an 85 h.p. LeBlond; and the 9000L with a 90 h.p. LeBlond. A few airplanes were powered by the five cylinder 90 h.p. Warner engine.

Model 7000 and the Model 8500 were identical except for the engine h.p. The Model 8500 and the 9000-L were very similar to each other except for the engine, but the 9000-KR was modified considerably, especially around the front end. The deep NACA cowling changed its looks, and also added a bit to the available speed.

<u>Color and Markings</u>

Model 8500 - NC 17011 - May be yellow with black stripe.white edge.
This is the *Hi-Flier* kit subject.

Model 8500 - N 15856 - Red with black stripe, white edge lines.

(Both these airplanes were powered by 85 h.p. LeBlond engines)

Model 8500 - NC 15831 - Probably red with black stripe, white edge lines.
Equipped with Edo floats (silver)

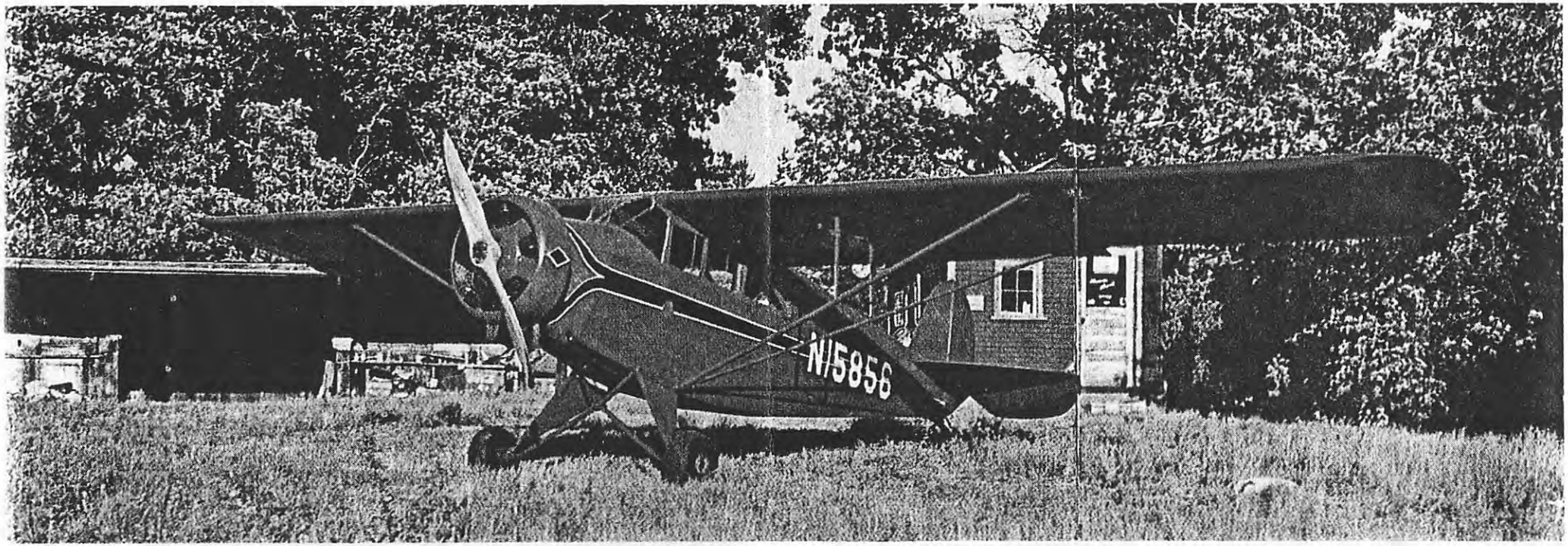
BILL NYIRI'S REARWIN SPORTSTER

Bill Nyiri of Seven Hills, Ohio, is one of the first participants in the hobby of restoring and flying antique aircraft. For almost fifty years Bill has owned and maintained the same airplane, a 1935 *Rearwin Sportster*. As a boy Bill spent as lot of time around the Bedford and Twinsburg airports and got hooked on aviation at an early age. His first ride was in an *Aeronca C-2*, which he was awarded as a return favor for freeing the pilot from his aircraft after a belly deep mud landing. In 1937, 17 year old Bill Nyiri learned to fly at Parma Airport in his brother's *Ryan STA*. His brother was also his flight instructor.

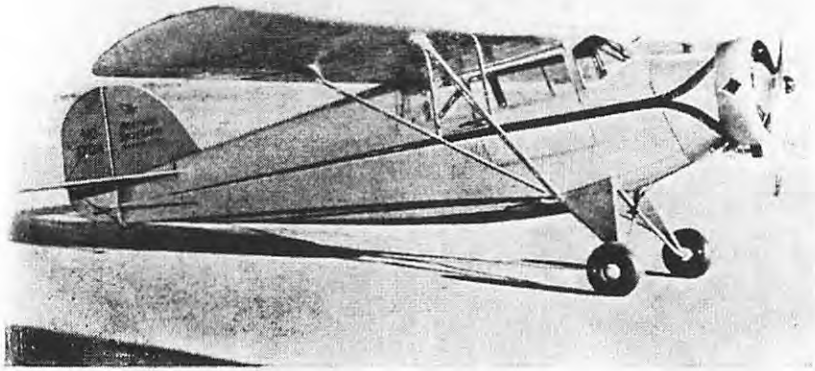
A paratrooper in world War II, Bill survived to take up flying again in the late 40s. He flew a *Taylorcraft, Luscombe, Stearman, Cessna T-50* and a *Cessna 140*. One day in 1948 he found the parts and pieces of a Rearwin which he purchased for $350.00. He soon hauled the parts home and rebuilt it into a flyable airplane. This was a *Sporster*, NC15801, Serial Number 437, and was built by Rearwin Airplanes, Inc., of Kansas City, MO as a Model 7000, powered by a five cylinder, 70 horsepower LeBlond 5DE radial engine. It was in that configuration that Bill purchased it however later he converted it to a 90 h.p. KenRoyce. The factory had made the same change in 1936, along with airframe improvements, and redesignated the airplane the 9000-L. The vertical fin and rudder were enlarged a bit and changed to a more round shape and a speed ring cowling was offered as an option. Bill's *Sportster* still looks like a 7000 but has the get up and go of a 9000-L. It has a blue fuselage and yellow wings a horizontal tail, plus a production line standard trim scheme.



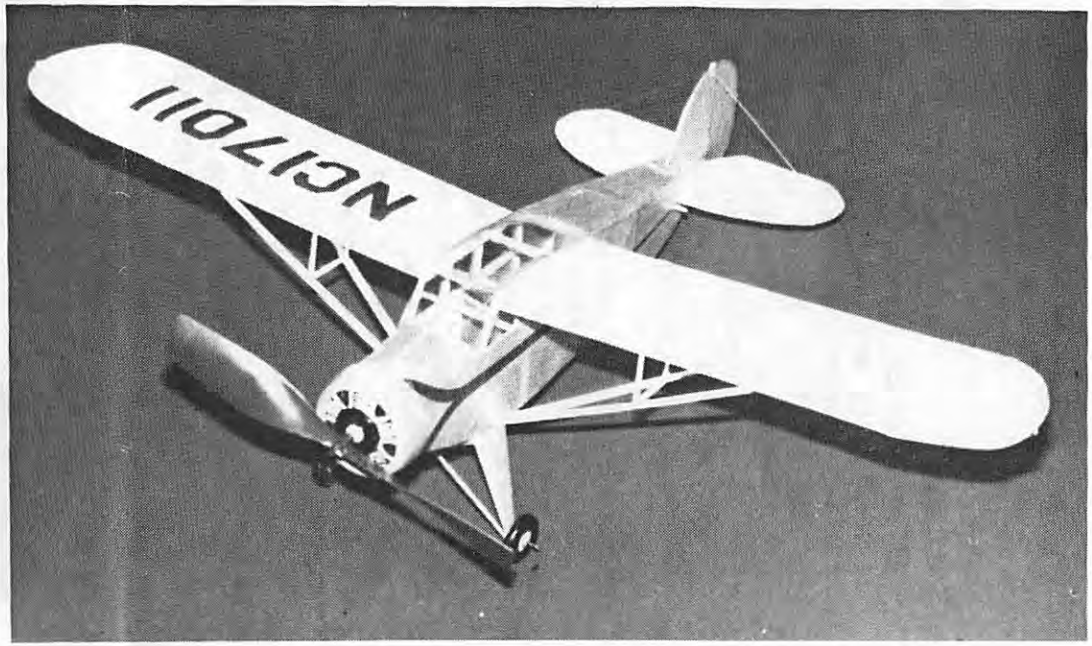
BILL NYIRI



Rearwin Sportster N15856. Red with black forked stripe, white edge lines.

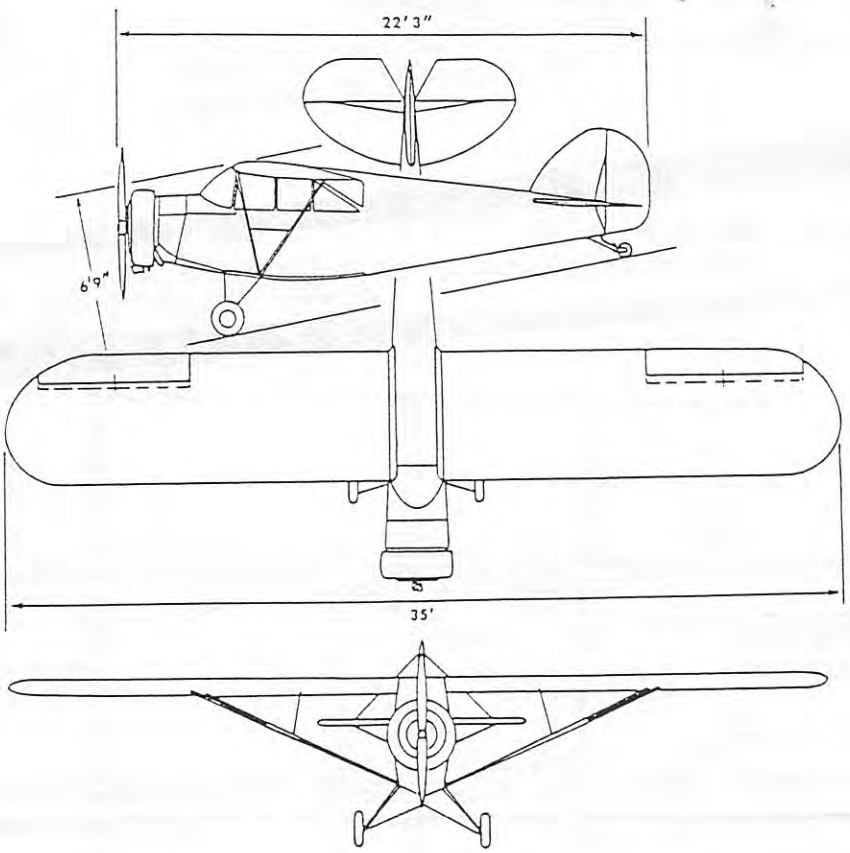


NC 17011 - *Hi Flyer* kit subject



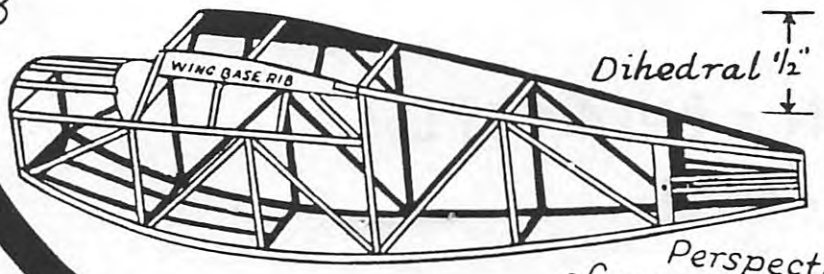
Rearwin Sportster built from the *Hi Flyer* kit.

REARWIN - SPORTSTER 7000



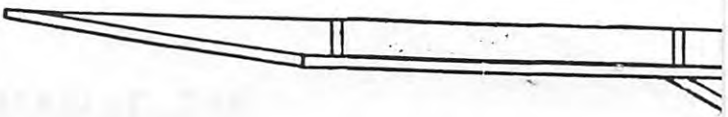


N15801 - BILL NYIRI'S AIRPLANE



Perspective view of assembled fuselage

Dihedral 1/2"





Cut out DASH and cement to Former "B."

Cut design from plan and cement to fuselage as indicated by dotted lines in Fig. 1

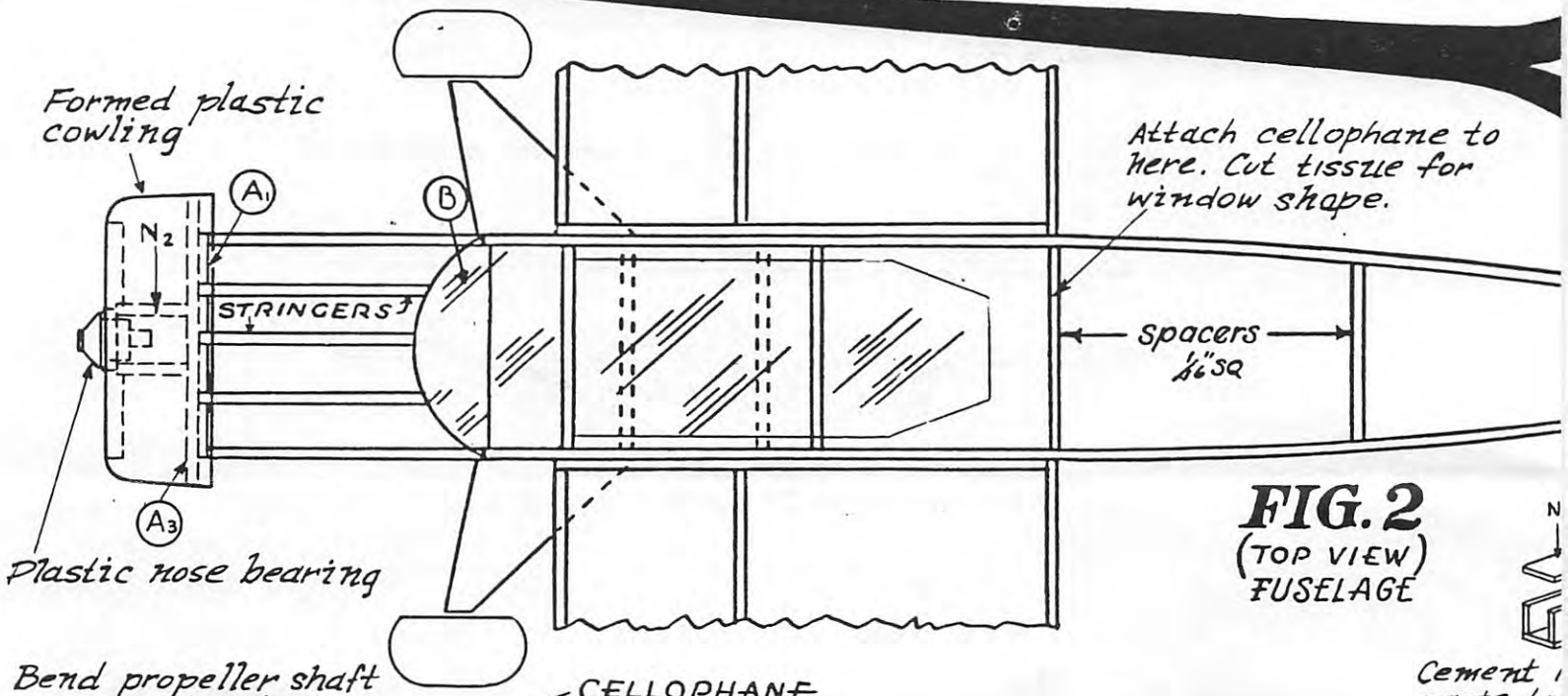


FIG. 2
(TOP VIEW)
FUSELAGE

Cement parts to Cement

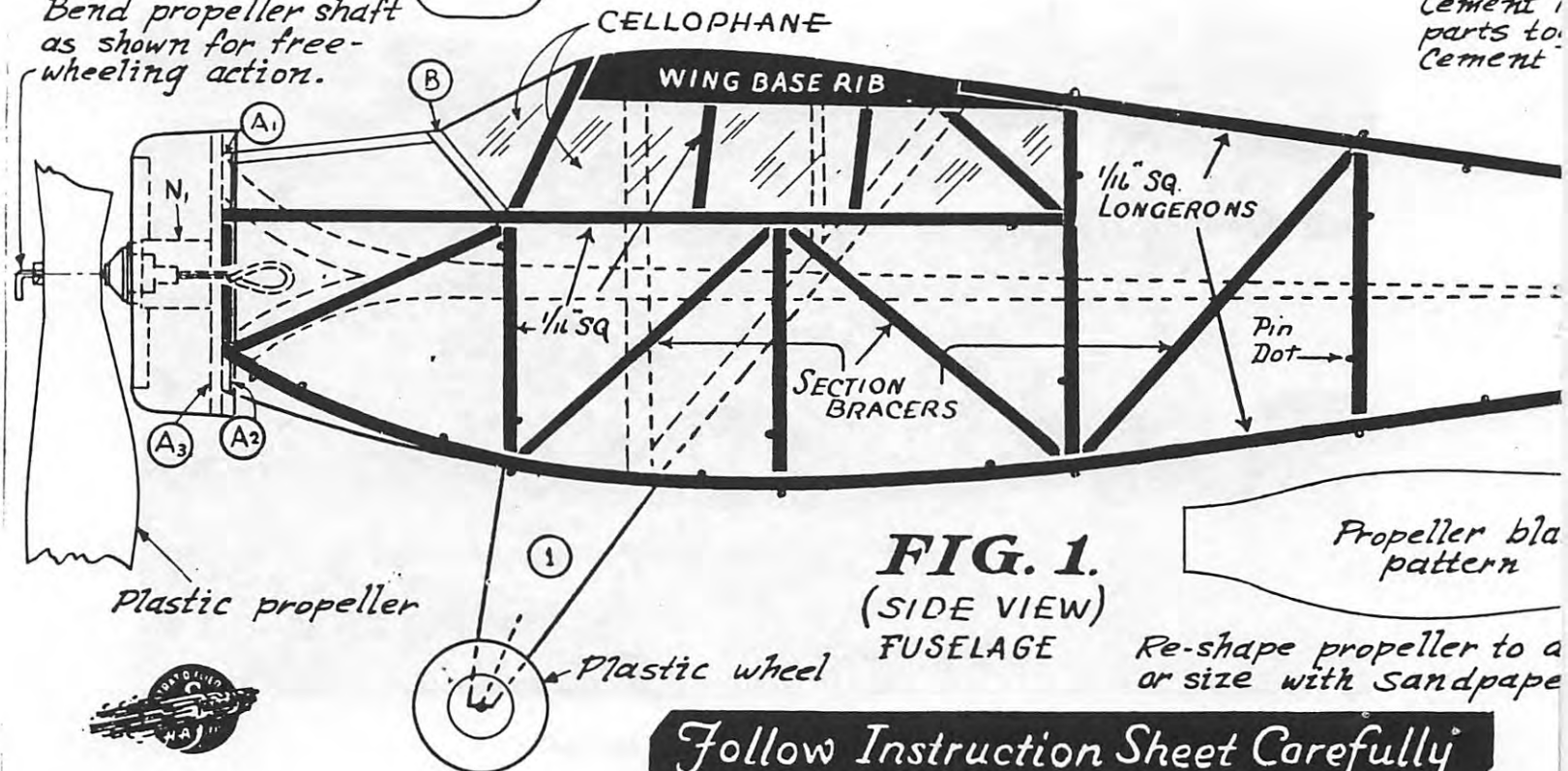


FIG. 1.
(SIDE VIEW)
FUSELAGE

Propeller bla pattern

Re-shape propeller to a or size with sandpape

Follow Instruction Sheet Carefully

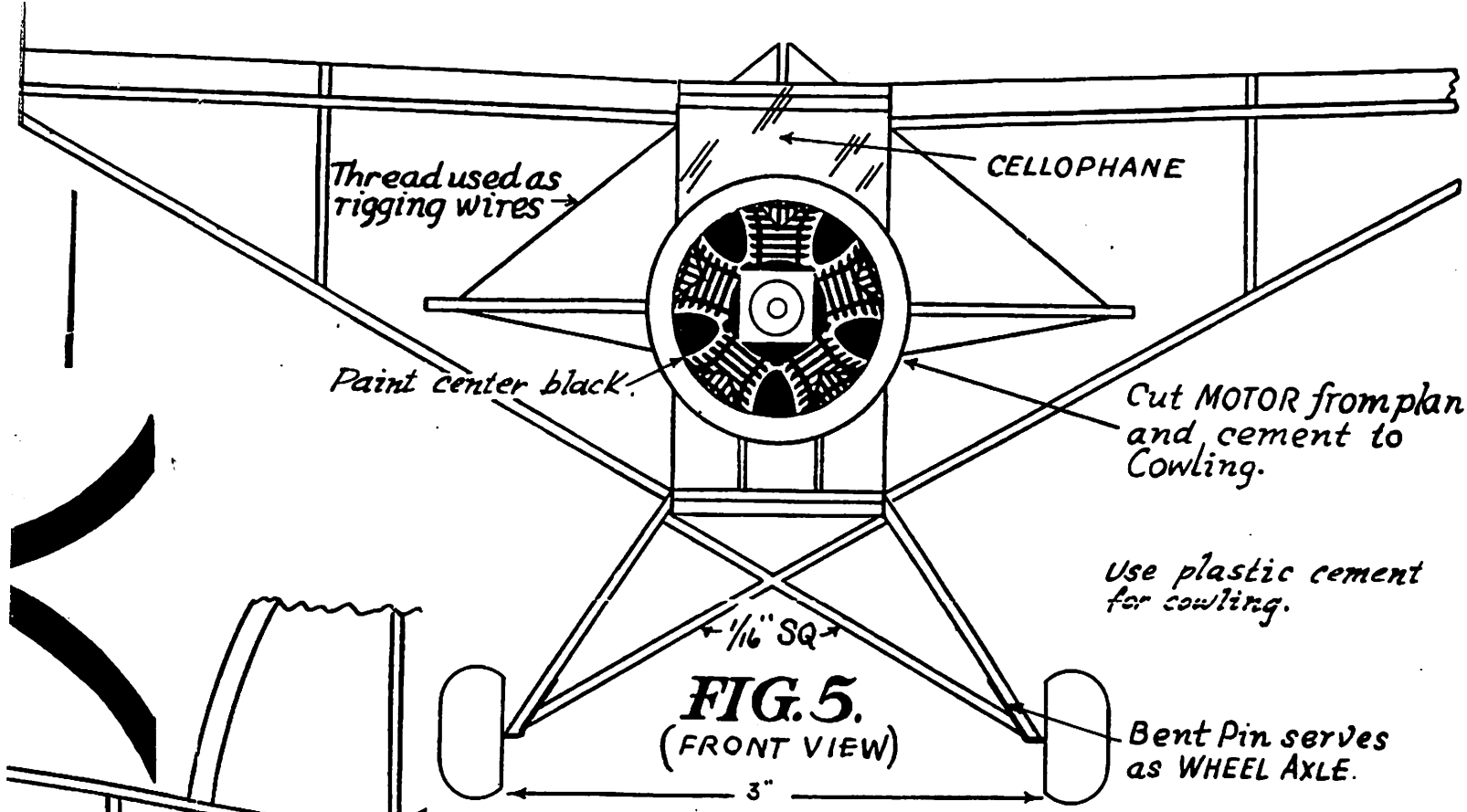


FIG. 5.
(FRONT VIEW)

TRADE MARK
KIT NO. 54
REG. U.S. PAT. OFF.

REARWIN SPORTSTER

WING SPAN~16 in.

The **HI-FLIER MFG. CO.**
DECATUR~ILLINOIS
The World's Largest Manufacturers of Aerial Toys
PAT. 1939 U.S. PATENT OFFICE

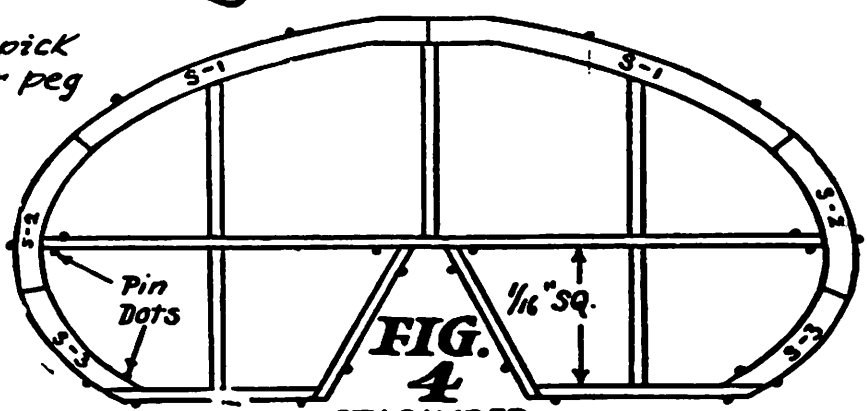
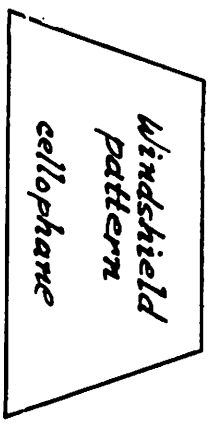


FIG. 4
STABILIZER





REARWIN SPORTSTER

WING SPAN-16 in.

The HI-FLIER MFG. CO.

DECATUR-ILLINOIS

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PAT. 1939 U.S. PATENT OFFICE

TRADE MARK KIT NO. 54

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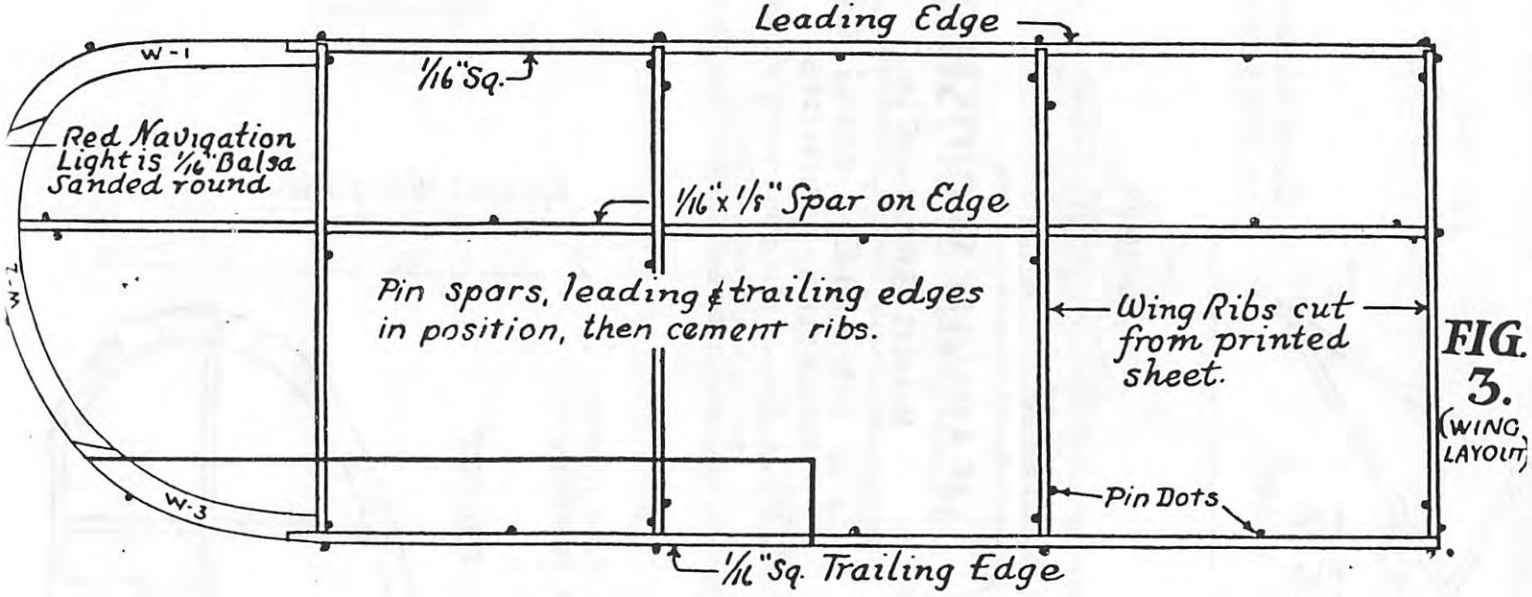


FIG. 3. (WING LAYOUT)



GREEN NAVIGATION LIGHT.

AILERONS formed by cementing thread or strips of dark paper to covering.

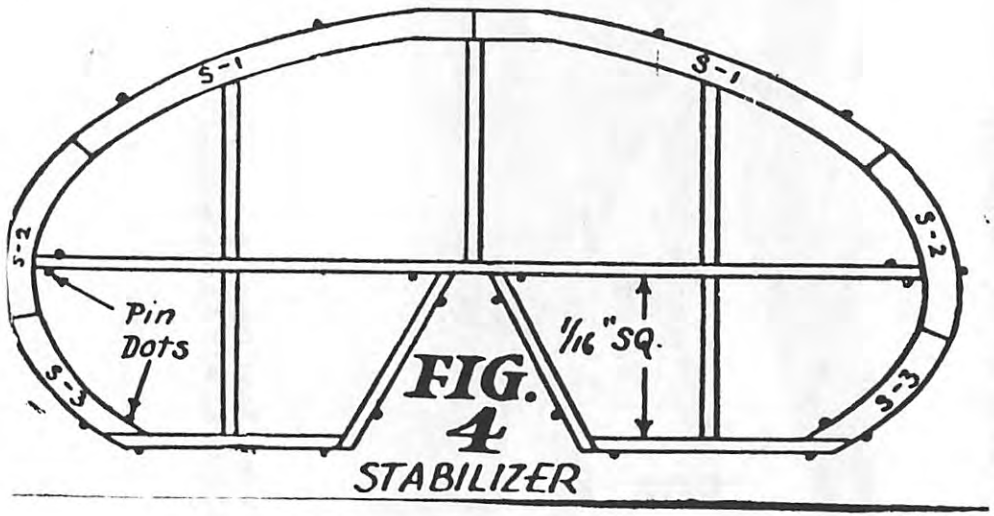
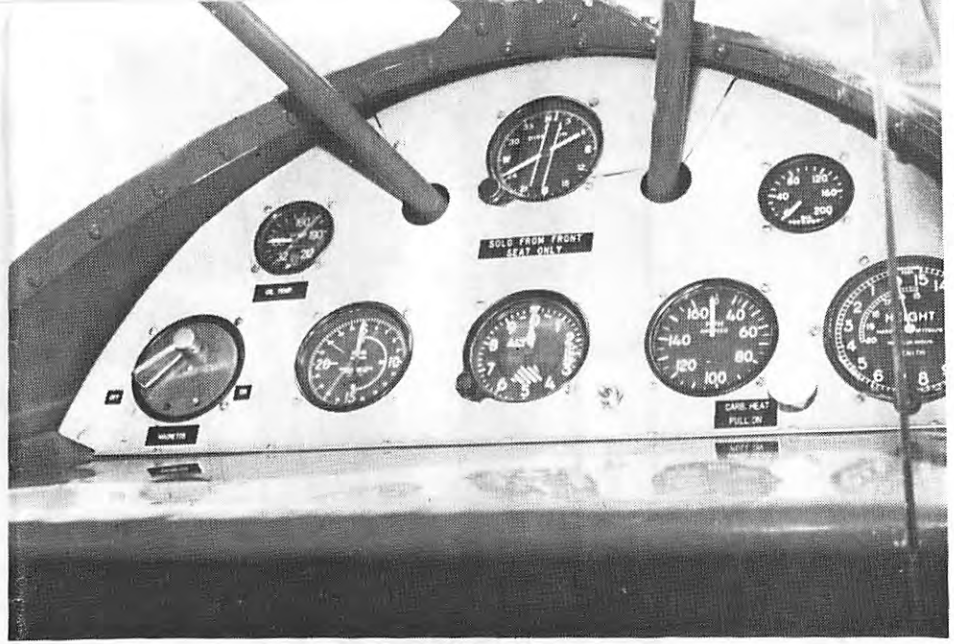
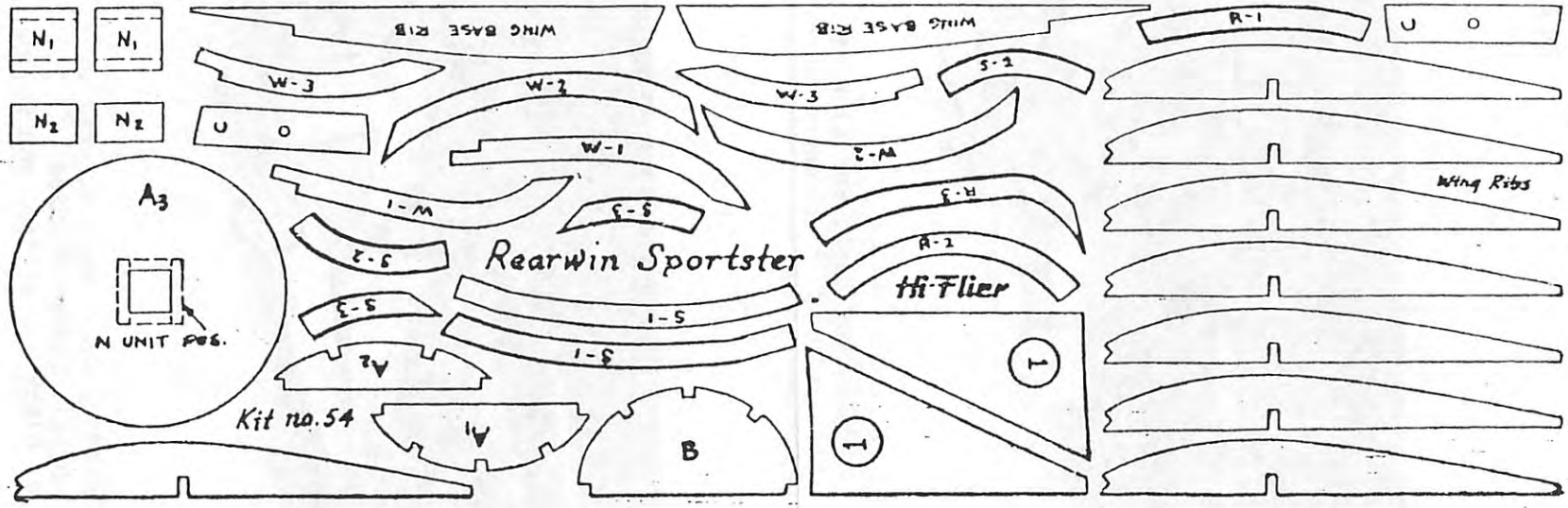


FIG. 4
STABILIZER



N15801-Instrument panel



OHIO
HISTORY of FLIGHT, INC.
AIR MUSEUM



1938 Culver Dart, Serial # 91
Manufactured in Columbus, Ohio.



1927 Waco 9. Manufactured in Troy,Ohio.
Pictured on a USA 13 cent stamp, entitled:
Commercial Aviation, 1926-1976.



1930 Aeronca C-2. Manufactured in
Cincinnatti, Ohio. NC10304.
Orange, black pin stripe, and yellow.



DeHaviland DH-4. On loan from
the U.S. Air Force Museum.

CODA

The word *coda* means *tail* and is applied in music to the close of a composition or movement. It is an ending either short or extended and may contain references to the material already presented. In the case of Crosswinds 90 this conclusion will be extended to include references, building suggestions for the model, and some other loose ends that should be drawn together.

When building the *Hi-Flier* version try the enlarged stab, and perhaps also increase the vertical tail size as well. As presented here the stab is increased in size to 115% My model with the original stabilizer was a tail wagger and since it met an early demise, I didn't get to try any modifications to the original. Also I suggest building the wing in one piece for ease of alignment. The kit contained a plastic cowl but it should be relatively easy to fabricate one of balsa based on the size of A3 and the plan.

Our next issue of Crosswinds will continue with the **Rearwin Sportster** saga. There will be a larger version of the model by a former Rearwin engineer and the issue will include engine detail and more float information. For now if you are interested in the float version refer back to Crosswinds 88, page 10, for Edo float plans.

If you would like a color copy of a photo of Bill Nyiri's 1935 *Sportster* you may send $2.00 and a business SASE to me. The picture will be approximately 4" by 6" and would be a nice addition to your scale documentation.

REFERENCES

Aero Digest, April 1935
Aero Digest, July 1935
Aero Digest, April 1936
Air Classics, Winter 1973
Buckeye Airman, Fourth Quarter 1989
Sport Aviation, April 1986
Sportsman Pilot, Winter 1984
Sport Planes Yearbook, Fall 1972

CROSSWINDS readers with red feather scratched renewal issue codes lower than this #90 can avoid the **KAPUT** chop to the address label by sending $12.00 to: Russ Brown, 4909 N. Sedgewick, Lyndhurst, OH 44124.

1997 WORLDWIDE POSTAL COMPETITION
for
CHESTER LANZO'S "1933 CABIN"
and
25" and 36" RUBBER, 50" GLIDER OLDTIMER/VINTAGE MODELS

for information contact:

JIM MOSELEY
19 Banner Crescent
Ajax, Ontario LIS 3S8
CANADA

FLAT HATIN' ON RED ALERTS

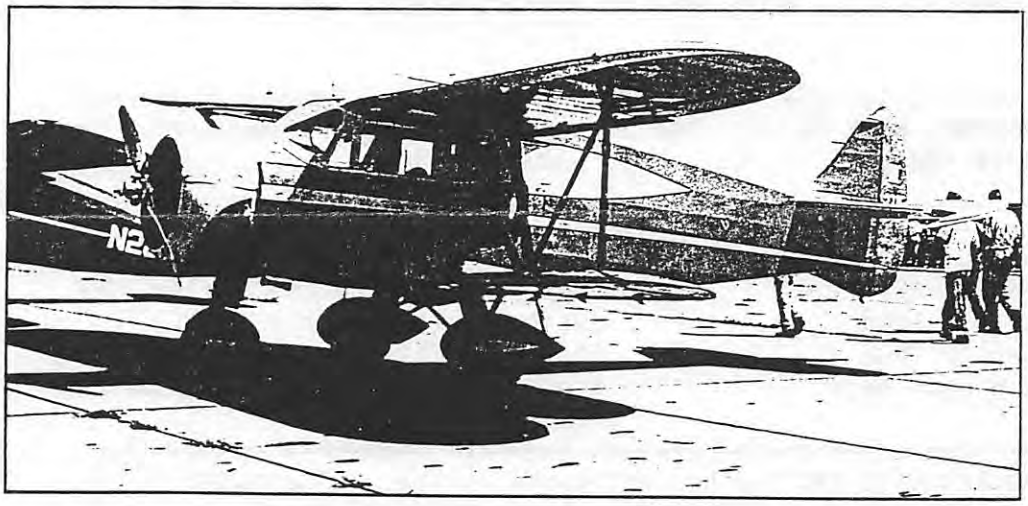
Sun. May 4 Detroiten Geschwader Red Hats fly indoors at Flint MI.

Erie FAC action dates at Prangmore Aerodrome are Sat. 5/10,6/7,8/9, & 9/27. The banquet will follow on 9/27.

Rudy the red Bonzo called to ask for Jimmie Allen events at CFFS contests. It's a go Rudy; build & fly! Best 3 Of 6 flights, 2 min. max., but will time to 3 min. for postal use. Lee Campbell's Custom Kits at 7233 Signature Lane, San Antiono, TX 78263, tel. 210/ 649-3980 has the 24 in. span B-A Skokie Cabin kit, and several Old Time Rubber kits for 36 in. mx. events at CFFS and Erie. Send about $3 for a catalog. Pete Zbasnik has the B-A PaRASOL.

Red Buster # 20 pilot Bill Brennan will speak on Goodyear Races Sat. May 3 at the Annual Air Racing Symposium May 2-3-4 at the Cleveland W. 150 & I-71 Holiday Inn. Al Wimer covers the history of Cosmic Wind Racers, and Ed Stoll will cover Pulitzer Races. Advance Regristration is $30 to Herman Schaub at 168 Marion Lane, Berea, OH 44017. Tel. 216/ 234-2301.

The WACO Fly In is 6/28-29 at Wynkoop Field, Mt. Vernon, OH. The white and wine red WACO ZVN N 1937 S shown in CROSSWINDS # 88 with the Geo. Bredehoft plan, was at the WACO Fly In in 1995. Ref. EAA VINTAGE AIRPLANE Jan. 1993.



1938 WACO AVN-8 of Stanley and John Howe. NC 231 E was bright red with cream trim and thin black edge lines. Wheel pants were off when flown on wet snow. Photo courtesy EAA VINTAGE AIRPLANE 3/96.

WACO N NC 231 E was used by military and reworked after war by WACO; Flare tubes and a sight were retained. John Howe survives and was consulted 10/13/96.



Breaking out in Cowl Bumps

The elligant Gull Wing Stinson Kit from John Bell is attracting well desirved attention. the formed bump cowl really grabs us, as well as the state-of-art laminated wing tips and tail feathers. Plans and materials are real good too. Lin Reichel will report on building this kit in FLYING ACES CLUB NEWS. Looking for bright colors for outdoor flying, I find SR-7 NC 15173 is white with bright red trim in EAA SPORT AVIATION April 1986. And in CANADA, C-FOAW on floats is bright red with white trim and Alum. wings. and floats. Ref. EAA V.A. May 5,1994 pg. 18. The Bell M.A. Co. Catalog is loaded with great stuf!

CFFS NEWS & VIEWS

President Steve Griebling received a number of positive responses regarding his *Report Cards* that he created and presented to those clubsters who flew and placed at our contests in 1996. Steve wishes to thank all the CD'S for providing him with the necessary information. The practice will be continued, so in this regard, all contest directors should promptly get results to Steve as well as AMA, and Roy Courtney for FAC **Kanones.**

The **Westgate Mall Show** was successful despite the lack of proper funding by the Mall. Mark Atwood reported that the *Cleveland Aeromodel Society* practically broke even because of a very strong effort by all the involved clubs to sell raffle tickets. Changes are in the works however, and next year unless a mall provides the tables and chairs at no cost, there will not be a show. **CFFS** had a good showing. There were over eighty airplanes on display at our tables, and thanks go to all who brought in models to display. We really need to get more member participation at this activity. Dennis Norman brought in over forty planes himself, which just doesn't seem quite fair. We also need more help, especially on set up night, and on Saturday night for the judging.

Newsletter production is also an area that needs more participation. Putting an issue together is fun but can be very time consuming. Those of you with Word Processing skills should give it a try. We finally have it on a pay as you go basis and are producing about three a year. It would be great if we could have four issues annually. Give it some thought. We have forty five members as of this writing. Certainly there is more help for our activities out there.

I sincerely hope that this *Rearwin Sportster* issue meets with your approval. Any one building a model of Bill Nyiri's 1935 Airplane please send me a color picture and I will make sure he receives it. It will give him much pleasure.

Our summer 1997 contest calendar is included. Hope to see you at some of these meets. Also try to get to Erie for their contests which are on the following Saturdays: May 10, June 7, August 9 and September 27.

MICHAEL C. ZAND
SECRETARY/TREASURER CFFS
APRIL 1997



Bill Nyiri's Sportster. Notice the shape of the vertical tail.

CFFS CONTEST EVENTS 10AM-5PM AT CALL FIELD, STOW AND LORAIN COUNTY C.C.ELYRIA

1. FAC PEANUT SCALE, FULL PTS.
2. HI-WING CABIN PEANUT EXPERIMENTAL
3. HI-WING CABIN PEANUT PRODUCTION
4. DIME & HI-FLIER RUB. SCALE
5. COMET & GOLDEN AGE RUBBER SCALE
6. FAC RUBBER SCALE
7. PIONEER THRU 1914 RUBBER SCALE
8. NO. CAL PROFILE SCALE
9. EMBRYO ENDURANCE (J)(S)(O)
10. FAC CO2 & ELECT POWER SCALE
11. O.T. REPLICA CO2 & ELECT. PREC*
12. JR. FUSELAGE RUBBER (J).
13. JR. STICK (J)
14. WW I PEANUT BIPE MASS L. AT 11:00
15. WW I FAC BIPE DOGFIGHT AT 11:30
16. WW II NO. CAL ONE M.L. AT 12:00
17. FUNK & WACO ONE MASS L. AT 12:30
18. GREVE RACE MASS LAUNCH AT 1:00
19. WW II PEANUT MASS LAUNCH AT 2:00
20. THOMPSON TROPHY M.L. AT 3:00
21. WW II FAC COMBAT M.L. AT 4:00
22. H.L.GLIDER (J)(S)(O) *$1 POT PRIZE
23. HAND CAT.G. 6"STICK. * POT
24. FAC O.T. RUBBER 36" MAX.*POT PRIZE
25. FAC O.T. STICK 36"MAX. * POT PRIZE
26. BYO MODEL EVENTS FOR 3 PLUS ENTRY.
27. JIMMIE ALLEN MODELS, BEST 3 OF 6 R.O.G., 120 MAX. BRING PLAN * POT PRIZE.

DUAL CLASS M.L. EVENTS FOR 15% WT. MOTOR AND UNLIMITED RUBBER WT. MODELS.
MR. MULLIGAN IN THOMPSON AND PAGE RACER MAY FLY IN GREVE EVENTS.

COMET & GOLDEN AGE AND DIME SCALE & HI-FLIER MUST HAVE ALL PLAN DETAILS.
BRING PLAN FOR VERIFICATION. DOUBLE COVER ALL SURFACES.
BRING OLD TIMER RUBBER PLANS FOR CONSTRUCTION VERIFICATION.

PICK A PLAN PRIZE AND * $1 ENTRY FOR EVENT POT PRIZE.

SUNDAY MAY 25 10AM-5PM CFFS AT CALL FIELD, STOW,OHIO. CD RUSS BROWN 382-4821
RT 91 S FROM HUDSON, LEFT 40 SOUTH EAST ON FISHCREEK RD. TO CALL RD. LEFT (EAST) ON CALL TO STOW RD. INTERSECTION.

SUNDAY JUNE 22 10AM-5PM CFFS AT LORAIN COUNTY C.C., ELYRIA,OH. CD JIM HYKA PH 216/ 481-6525. I-90 EXIT 148 S. TO ABBE RD RT. 301S.

SUNDAY JULY 27 CFFS AT CALL FIELD,STOW. CD GORDON ROBERTS 216-749-4817.

SUNDAY AUG. 3 CFFS AT L.C.C.C., ELYRIA. CD PETE ZBASNIK 216-476-4824.

SUNDAY SEPT 7 CFFS AT L.C.C.C., CD RUSS BROWN 216-382-4821.

