

# KR Newsletter

ISSUE #29  
NOVEMBER 1977

## SUBSCRIPTION RATES

AIR MAIL \$10.00

1 year \$6.00

0/seas \$7.50



I think we have in this issue the two best latching systems yet for the KR retractable gear. One is a drawing of Charlie Wells super fine set-up as pictured in Newsletter # 19. It was sent in by Bill DeFreze of Dublin, Ca. who built it up from the pics for his KR-2. The other system is a simple add-on to the plans version and will appeal to the cost conscious among us. It's simple, effective, and easy to install. Take your choice, they are the best ideas I've seen yet.

The flight report from Art Lederle is welcome and should encourage the lagging builders to finish their KR. It is typical of the enthusiasm of all the guys I've talked to that have finished building and are now flying.

### FLIGHT REPORT

I have a KR-2 which I started building in April of 1975 and finished and flew first in April of 1977. It is built very closely to Rand/Robinson plans. Actual building time was about 20 months at 60 hours a month.

My plane N98DL has an 1834 cc Revmaster engine with full electric-single mag and a Rand/Robinson 3-blade, ground adjustable prop. To date, it has about 18 hours but I can't give more than just vague performance numbers...stall 40-45...cruise 150+...climb poor. Every time I get over 150 mph I get scared and slow down. Stalls-very gentle straight ahead. It flies hands off forever, is very comfortable and stable through all speed ranges and still extremely responsive to controls when I want it to work! Climb at 70 mph is about 500-750 feet per minute.

I fly out of a 2000' tall grass (5") field which makes the take off run about 900' or 1000', no wind-sea level. The landing roll is comfortably short which is welcome in view of the poor braking. I have to be very careful with speed control on the landing. Pattern-70 mph down to 50-55 on final and still slip and sweat it down to the threshold where I can float another 500". Ground handling is the best tail wheel I have ever flown. I feel that the worst tailwheel is still better than the best nose wheel.

There are at least four other KR's under construction around the Long Island area and I hope that seeing mine finished inspires the builders to stick to their projects. Maybe there will be a regular squad around here some day.....Arthur Lederle, R.F.D. 1 Box 338, Wading River, NY 11792.

### BUY-SELL

FOR SALE...KR-2 project, fuselage complete, most kits to finish aircraft...\$750.00.

Everett Blair, 7672 E. Davenport, Scottsdale, AZ 85260 or phone 602-991-9447.

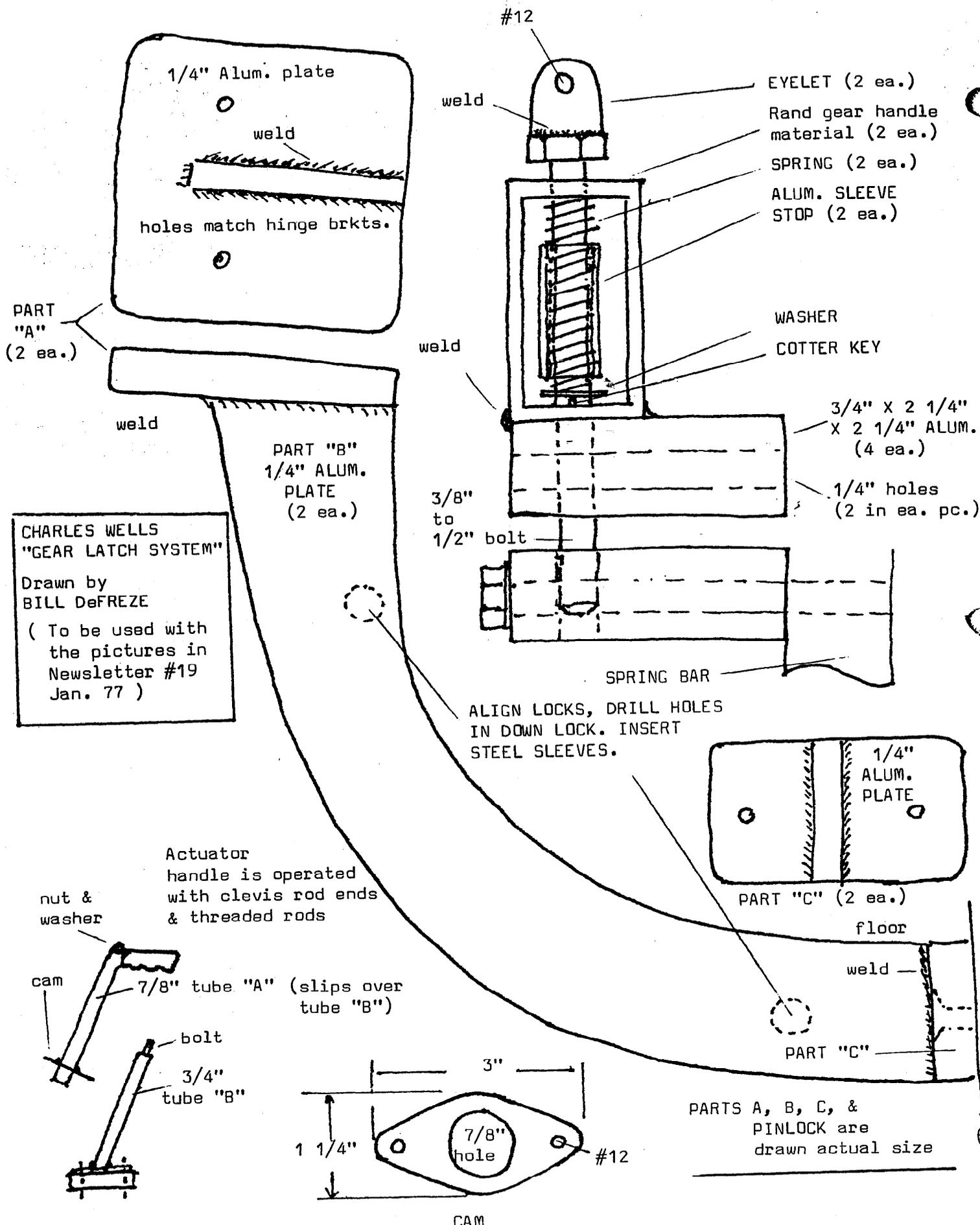
FOR SALE...KR-2, 50% complete. "0" time Revmaster 2100 D w/starter and electrics. Warnke ground adjustable prop. All materials to finish aircraft, less instruments. Joe Kvaltaine, RD 5, Airport Rd., Binghamton, NY 13905 or phone 607-797-0922.

FOR SALE...Rand VW engine mount. Bottom torqu member modified to accomodate Revmaster w/ starter or use with VW conv...\$65.00. Tom Loftin, 3618 Norland Ct., Independence, MD 64055.

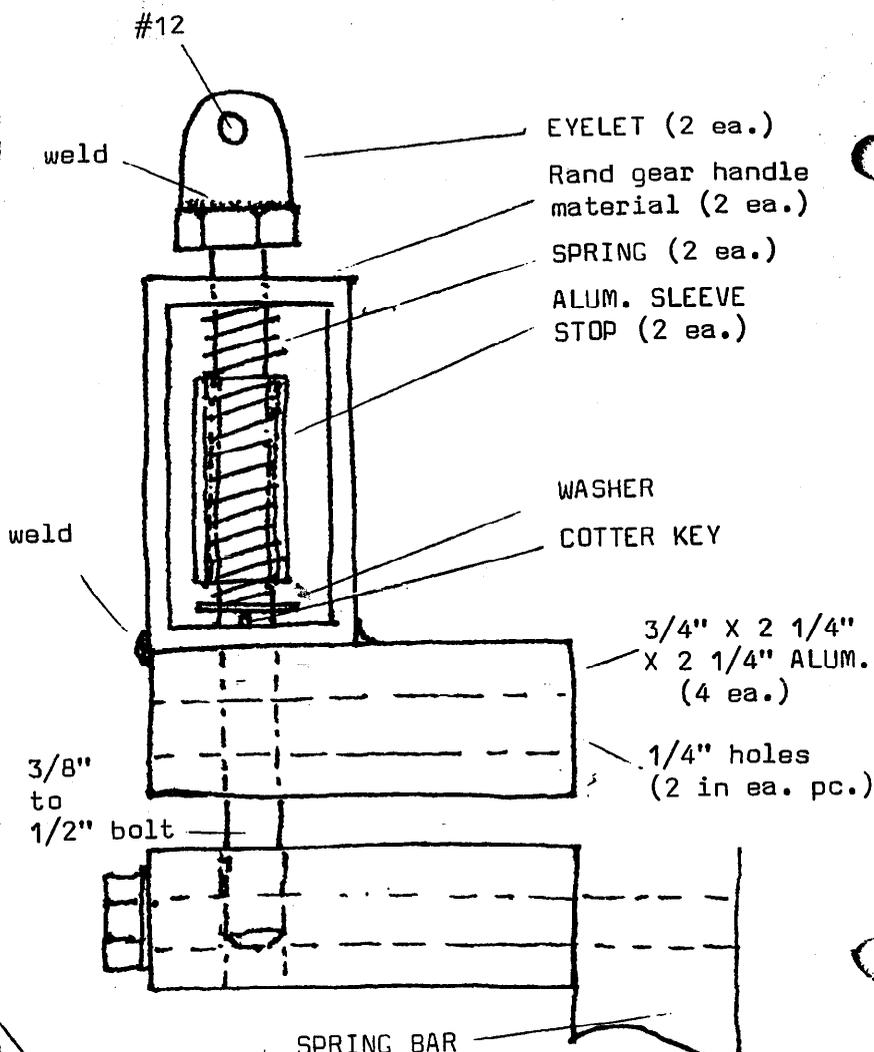
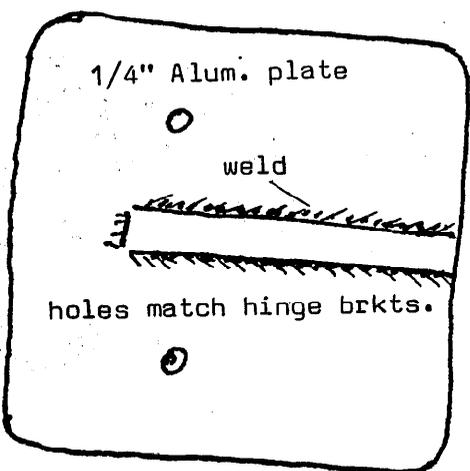
FOR SALE...Aircraft spark plugs, A.C., for VW conversion...\$4.00 ea. Rand/Robinson Eng., 5842 "K" McFadden Ave., Huntington Beach, CA 92647. Phone 714-898-3811.

FOR SALE...Nico Press swedging tool. For 1/16, 3/32 and 1/8 cables...\$6.95 plus \$1.00 for shipping. ROSKA, Box 57, Greenvale, NY 11548.

KR-3 UPDATE...Due to a delay in getting an engine, the -3 will not be ready for flight test until November. The planned Revmaster Turbo 2100 D with Maloof prop will increase available HP by 30%. This is expected to solve the marginal performance problem (on water). Flight test should have started by next issue.



PART "A" (2 ea.)



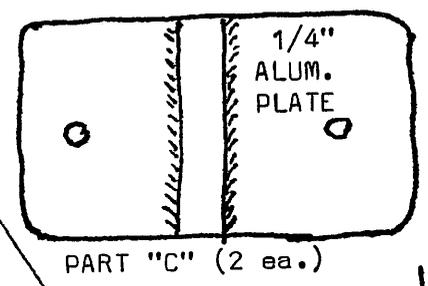
CHARLES WELLS  
"GEAR LATCH SYSTEM"

Drawn by  
BILL DeFREZE

( To be used with  
the pictures in  
Newsletter #19  
Jan. 77 )

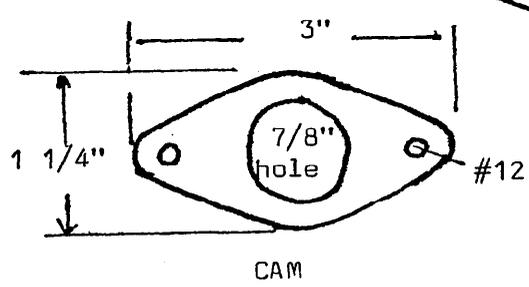
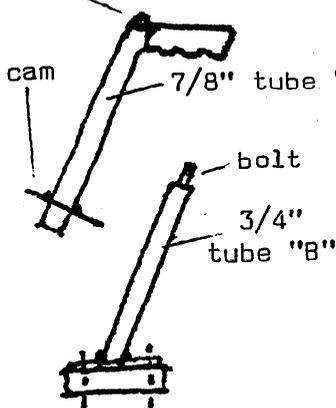
PART "B"  
1/4" ALUM.  
PLATE  
(2 ea.)

ALIGN LOCKS, DRILL HOLES  
IN DOWN LOCK. INSERT  
STEEL SLEEVES.



nut & washer

Actuator handle is operated with clevis rod ends & threaded rods



PARTS A, B, C, & PINLOCK are drawn actual size

## TIPS FROM OTHER BUILDERS

"A friend is building a VariEze and has given me some valuable information. Burt Rutan has done much research on composite type aircraft. He says that the European glass sailplane industry recommends protecting composite A/C from heat and the UV radiation in sunlight. Apparently excessive heat will cause some composite structures to soften. This leads to structural problems. Rutan recommends white paint to finish the A/C. If this is not possible, then the lighter the color the better. He also uses a primer/surfacer. This coating contains carbon black. More detailed information is found in the VariEze construction manual. The section is available to anyone from the Rutan Aircraft Factory. Ask for: RAF, P.O. Box 656, Mojave, CA 93501. This manual is excellent and well worth the cost. It also covers using micro balloons and Featherfil in finishing the surface. Straight "Bondo" should not be used extensively. It is made for cars and is very heavy. A VariEze builder used Bondo instead of Epoxy + microspheres and added 100 lbs. to his A/C! I also stumbled onto something which I had never heard of but maybe it is common knowledge to other builders. Its called Dragon-Skin and made by Red Devil. It is sort of a cross between sandpaper and the Arco disk rasp. It is a very thin flexible metal with holes punched in it. You can wrap it around a dowel or stick and shape places that you would think were impossible to get to. It also works very fast and never wears out. It is especially quick on end grain which cannot be worked with a plane. Oh, yes, Featherfil and micro balloons are available from the two VariEze distributors; (also Dupont 70S) Wick's Aircraft Supply, Madison County, Highland IL and Aircraft Spruce and Speciality, Box 424, Fullerton, CA 92632. For those who cannot locate the small circular saw, Brookstone has them. Brookstone has everything. I did not pay \$5.00 for the arbor. I cut the head off a 3/8" bolt of the appropriate length and sandwiched the blade between two nuts and washers. It works fine. What self respecting homebuilder is trying to build an airplane with a 1/4" drill instead of a 3/8" one? The saw is also good for cutting out the plywood where you have a irregular line to follow or when making the spar cut-outs in the skin. Number of the saw is P-4483-2" x .025" with 3/8" hole. Cost is \$8.00 plus \$1.35 from Brookstone Co., 125 Vose Farm Rd., Peterborough, NH 03458"... Bob Hartmaier, 240 McKinley Rd., Portsmouth, NH 03801.

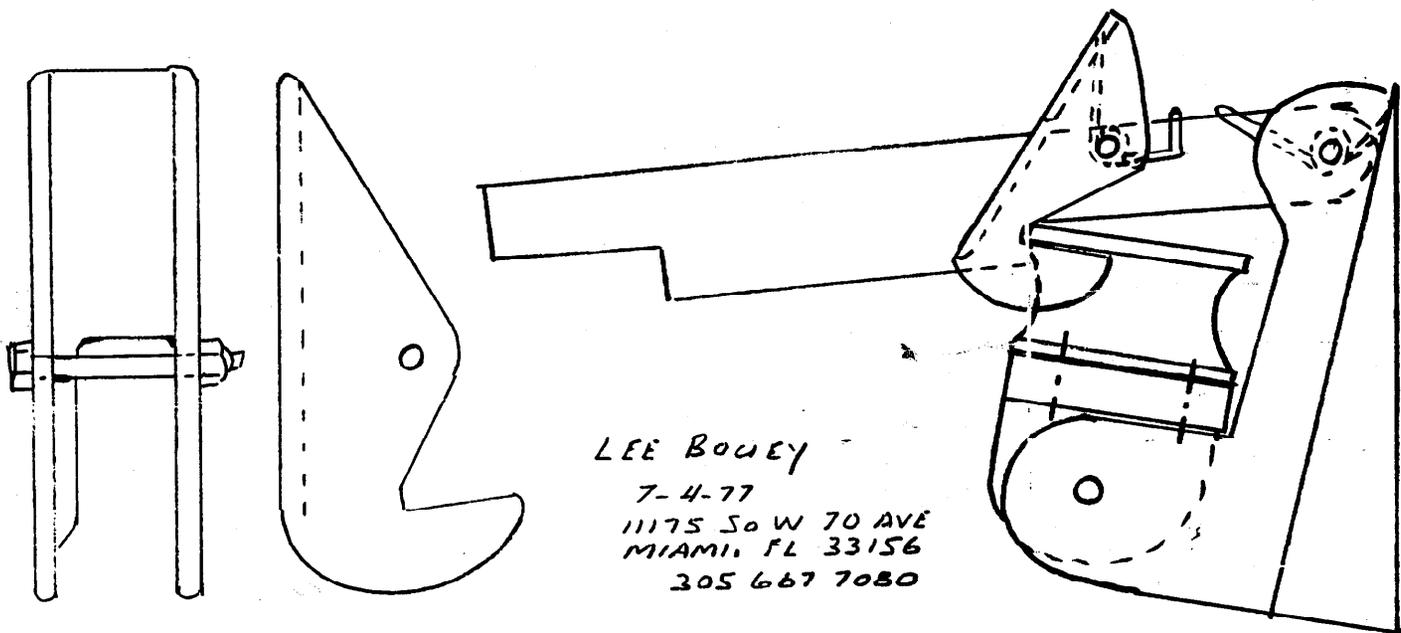
## QUESTIONS & ANSWERS

- Q. I ordered & received the fiberglass fuel tank/instrument panel from Rand/Robinson minus instructions. How do I install them?
- A. According to Rand, installation is the same as their foam counterparts, however, the the parts are pulled from a mold and there will be mold release compound on them. This must be removed before any of the pieces can be epoxied together or to the fuselage. Scraping and/or sanding is the only sure way to remove this waxy residue.
- Q. Is it acceptable to use two 3/16" bolts side by side when assembling my tail wheel fork to the bell crank?
- A. Yes, the shear value of two aircraft quality 3/16" bolts is more than adequate.
- Q. Does the elevator cable go around or thru the vertical stabilizer spar?
- A. Easiest route is thru the spar. A 1/4" hole is acceptable.

This is a KR-2 built by James Hutton, 2250 Sly Park Rd. Placerville, CA 95667. First flight of the red, white and blue KR was on Feb. 18th of this year. I'm hoping for a flight report from Jim for a later issue.



"This little goodie was constructed from a piece of stock left over from cutting out the aileron bell cranks. It doesn't seem like much but it works like a dream, costs the price of a nut and bolt and spring. If anyone is interested in making one, there is only one principal that must be adhered to. The mounting hole must be made well to the rear of the leading edge of the gear bar catch so as to be an eccentric mounting. This allows the latch to raise itself over the bar catch when lowering the gear and also, conversely, prevents the latch from releasing when in place."



ERNEST KOPPE  
6141 CHOCTAW DRIVE  
WESTMINSTER, CA. 92683  
ISSUE # 29