

LEE GILBERT'S THING ..STAGE



ON THROWING THE WHOLE BEAUTIFUL MESS TOGETHER



"... and for this I turned down a job with Hugh Hefner?"

YOU SHOULD HAVE THE MOTOR AND CHASSIS DONE BY NOW AND, IF YOU MADE IT THROUGH ALL OF THAT THEORY, I HOPE YOU'RE READY TO PUT IT ALL TOGETHER. THE ASSEMBLY OF THE CAR CAN REALLY MAKE OR BREAK WHAT YOU'VE ALREADY DONE SO YOU DON'T WANT TO BLOW IT NOW. STICK WITH ME AND YOU'LL DO ALL RIGHT.

MATERIAL LIST

- 1 Counterfeit Gilbert Chassis
- 1 Set up motor
- 1 Set Associated Front/Rear tires — 5/8" & 13/16" cut down jobs.
- 1 Pair Mura 3/32" ball bearings
- 1 Pair Mura lead wire (purple and yellow)
- 2 Parma 3/32" axles
- 1 Cox 32 tooth gear
- 1 Weldun or Monza steel pinion gear (7 tooth)
- 1 Camen super purple guide kit
- Set of Parma guide spacers
- Set 3/32" axle spacers
- Strip of .015" brass for guide clips
- A chunk of 1/8" K&S brass tubing
- 1 Length of .055" wire
- And don't forget one Girl Friday

THERE ARE THREE things to keep in mind while throwing your chass and motor together. Take your time... keep it clean... and be neat. All of these principles may be applied to any group car as well as an open machine. When you're building any kind of a race car you want it to be as perfect as possible in order to get the most out of what it was built for. If you are wondering what perfect is, just stick around and I'll tell you, of course.

The way we'll be building this car is exactly the way I build all of my cars. The techniques herein are the ones that I've enjoyed the most success with in the past.

The first thing that you'll notice (besides Dona) about this article is the trick job we did on the buss bar from last time. Don't worry about that now, just

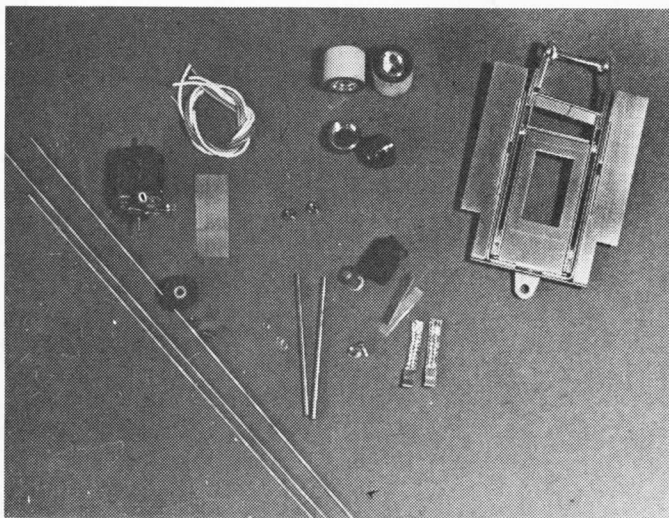
get your stuff together and I'll lay some rather light Gilbert throw-together theory on ya'. Start out by paying attention to details. Things like removing the dirt shields from the axle bearing make maintenance and running much smoother later. So take a few minutes and do it. A good set-up job on the gears and rear tires alone can determine whether or not your car will become a load or a missile. When you start to mount your motor make certain that the gear mesh is just right. Fiddle a little before you solder it all up. The right play is a loose none. That is a bad statement if you're into making sense of this, but it does best describe the way to get gears to stay in mesh. Plastic gears are usually in a hurt so you may have to become lucky as well as darn talented when going for the perfect feel. The axle

will warp slightly when you tighten the gear set-screw and tend to throw the tires and wheels out of round. Taking some time and finding the best in-true spot for the tires will make the car smooth right out of the box and give full advantage to the tire surface. In this case we cut down some new Associated rears to a tad over 13/16". The rubber is neat and you'll get the right kind of bite from it. If you can't get cut down Associateds, or get someone to do it for you, I recommend Acquirre's wide rims and tires. They're neat too but the rubber is as bad as that East Coast stuff the Camen crew has to run.

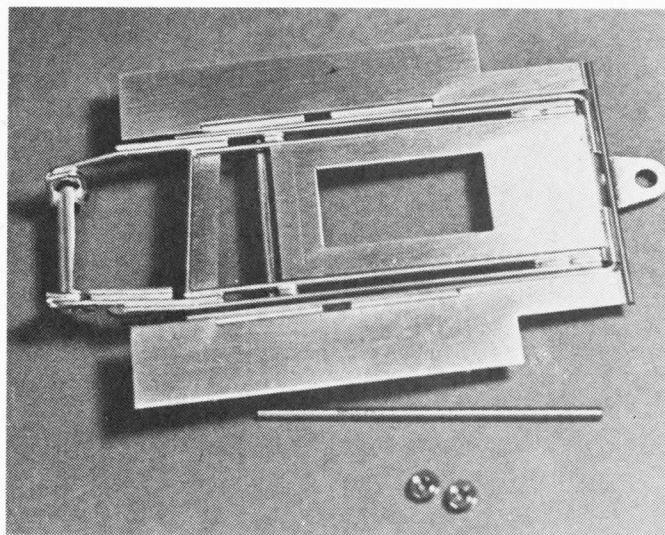
Once the motor, gears and rear tires are all in and bolted down relax awhile. You've just gone through the most unnerving thing to do with the whole car. The rest is easier but important just the same.

For the fronts (wheels/tires) we cut down some Associateds to a tad over 5/8". There are small fronts on the market but I prefer cut down ones of the Associated/Riggin variety. Use what you can get. We will play with front-end slop at the track so just use the article as a starting point. Generally, no slop for no glue and much play for glue. Fiddle in between for tuning.

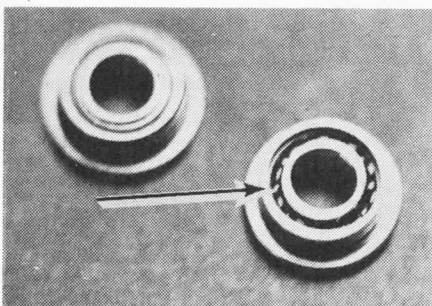
Stage V closes just before body mounting time. We wanted to get a little farther but space wouldn't allow that for this month. Next month we'll finish the car and do a little testing at the track and hopefully race the thing. Keep in mind that what you are learning here can be applied to all kinds of 1/24 race cars and even other scales in varying degrees. Just one more to go, and then man, are we going to have a party!



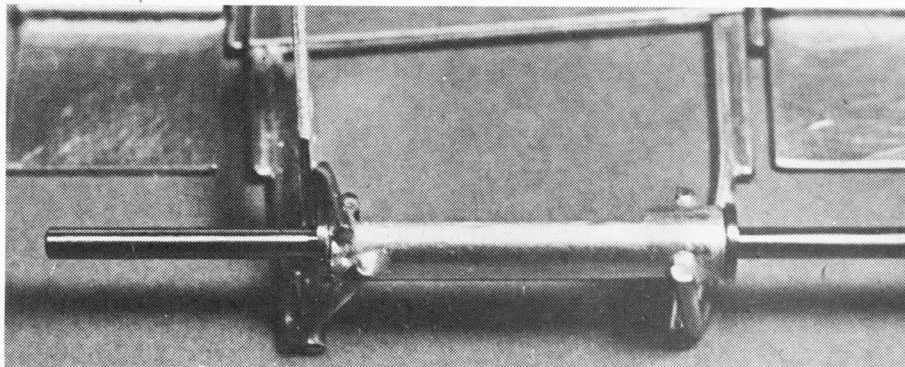
This is what you'll need to bolt your missile together. In a couple hours it might actually start to look like something.



STEP 1 Single out your bearings, axle and chassis.

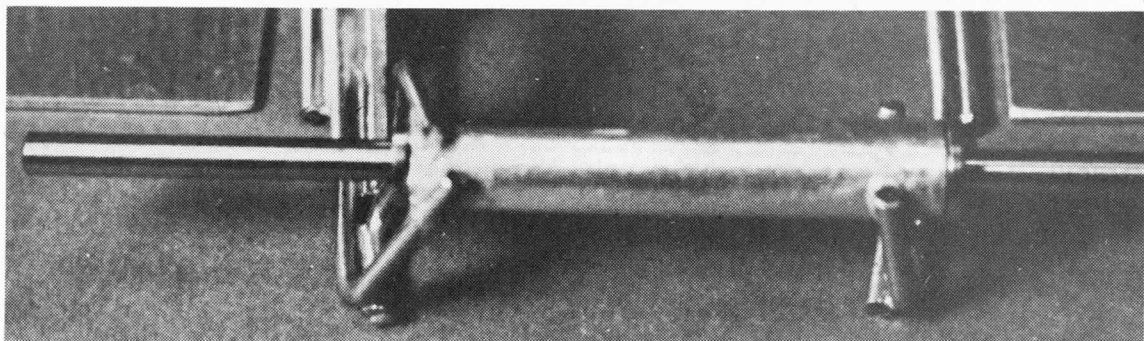


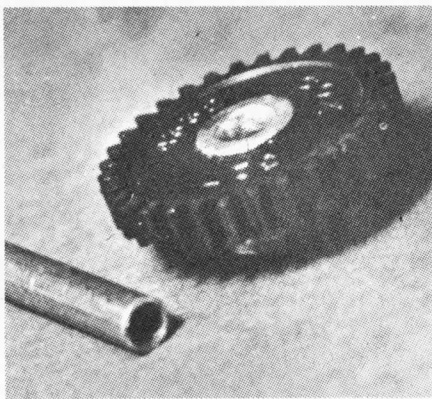
STEP 2 Beat the dirt shields out of the front and rear of each rear axle ball bearing. Yes, there is another use for old X-Acto knife blades.



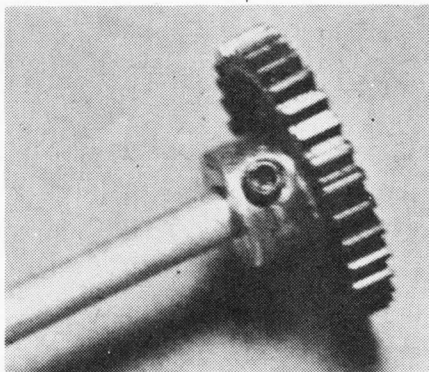
STEP 3 Align the modified bearings in the axle tube with your axle.

STEP 4 Solder the bearings to the axle tube. Be meek with the solder and acid. Use TigerMilk to clean your bearings.

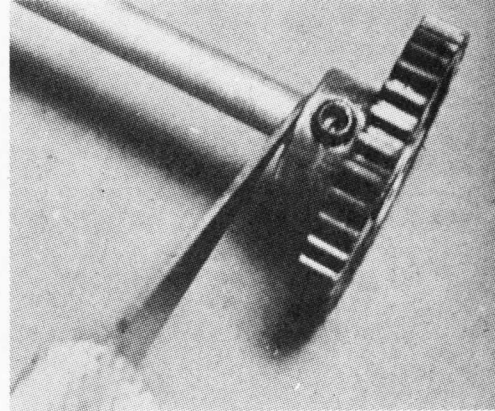




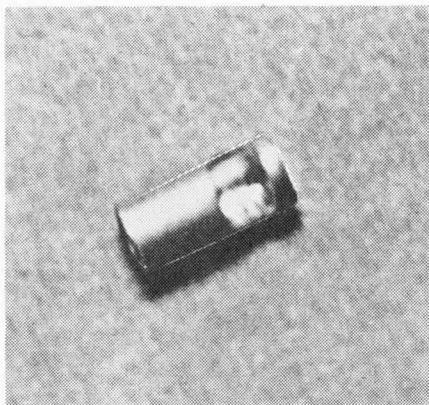
STEP 5 Grab your gear and a piece of 1/8" tubing. We're using a Cox 32.



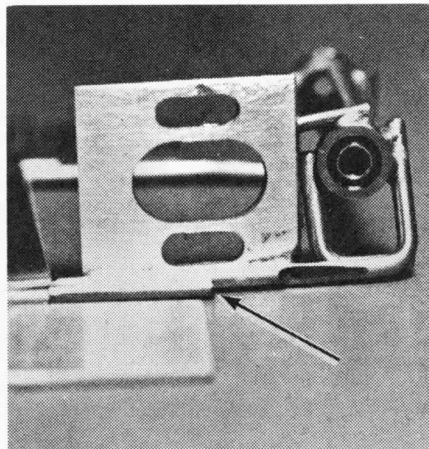
STEP 6 Insert the tubing in your gear flush with one end as shown. Crank the set-screw down firmly.



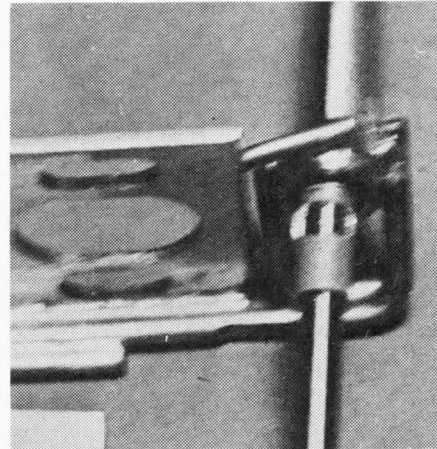
STEP 7 Here's another use for your crusty old X-Acto knife blade. Mark the opposite end for trimming.



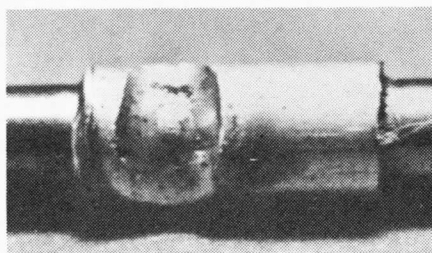
STEP 8 Cut a notch at the set-screw mark and *then* trim the little jewel off the long tubing. If you didn't do it this way, have your Girl Friday get some jam for your toasted fingers.



STEP 9 You may need to do a small bit of trimming on this half rail to clear a plastic gear.

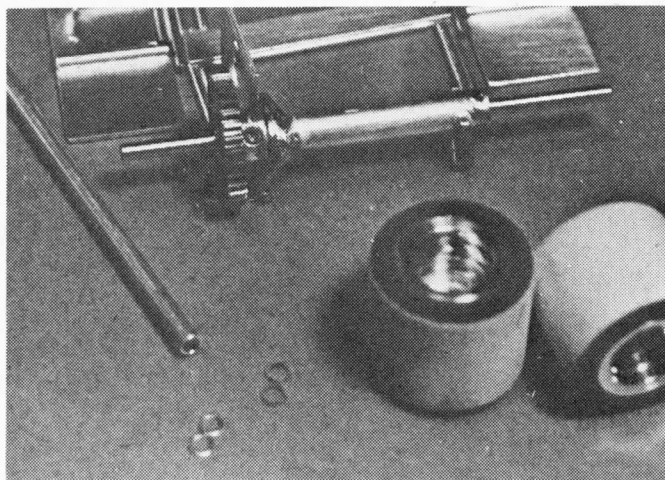
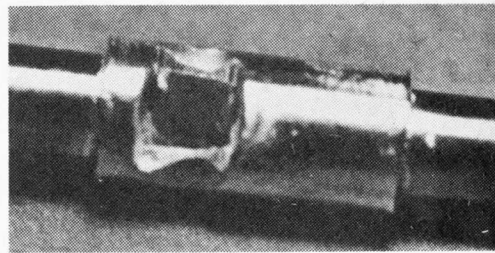


STEP 10 Center your axle in the chass and slip your gear hole reducer up snug to the proper bearing.

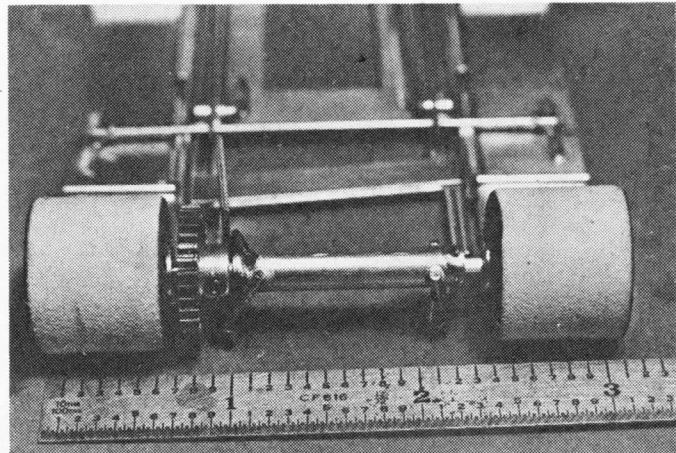


STEP 11 Slip the axle out of the bearings without moving the reducer. Drop some acid... on the notch, George, and sweat solder the reducer in place.

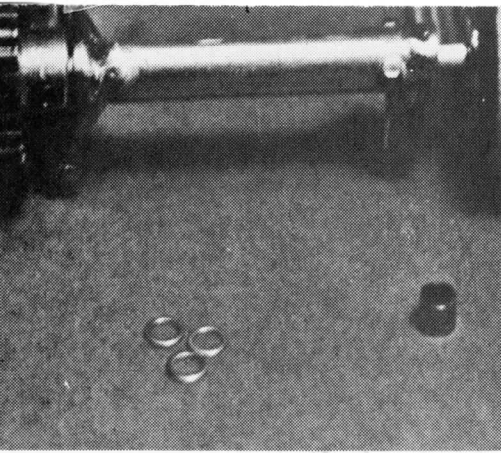
STEP 12. File and Dremel to your heart's content or at least until the thing looks like this unit.



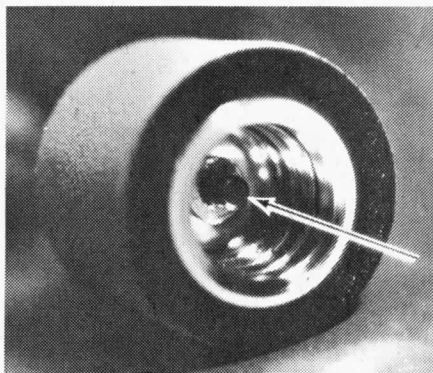
STEP 13 To mount the rear tires (13/16" Associated's) you'll need some axle spacing stuff.



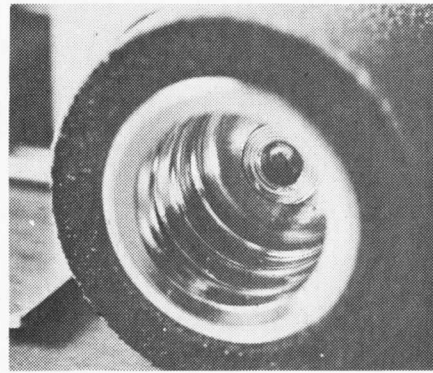
STEP 14 Using 3.1" for track width, center the tires at that width on the axle and in the chass. Don't forget to bolt the gear down hard.



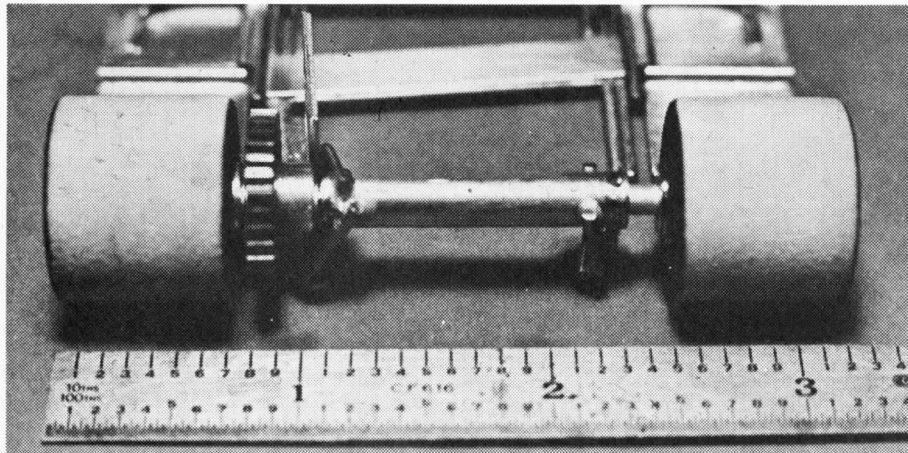
STEP 15 Guesstimate on the size spacers you'll need.



STEP 16 Mount the tires at the proper spacing and mark the axle where it protrudes from the wheel.



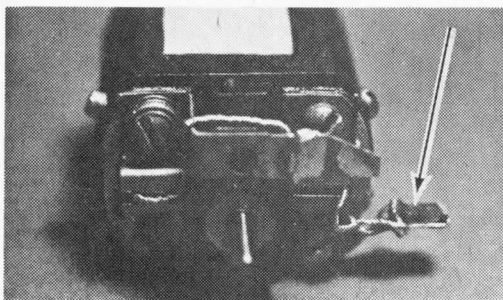
STEP 17 Trim the axles and remount the tires. This isn't done just to be neat, but it helps.



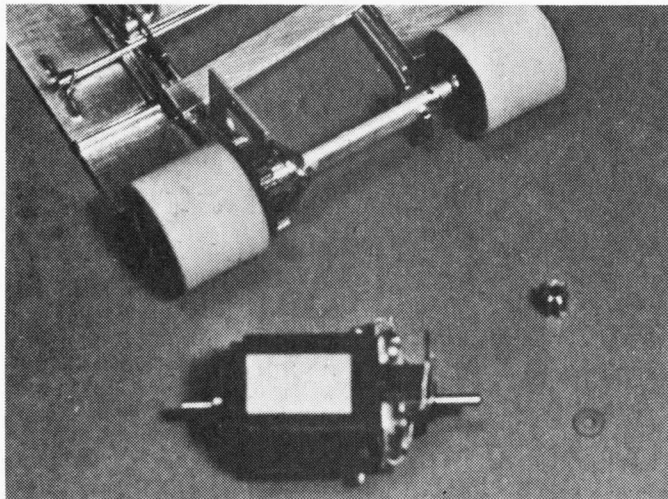
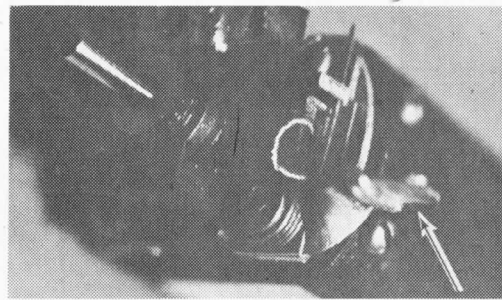
STEP 18 Recheck your work and spacing.



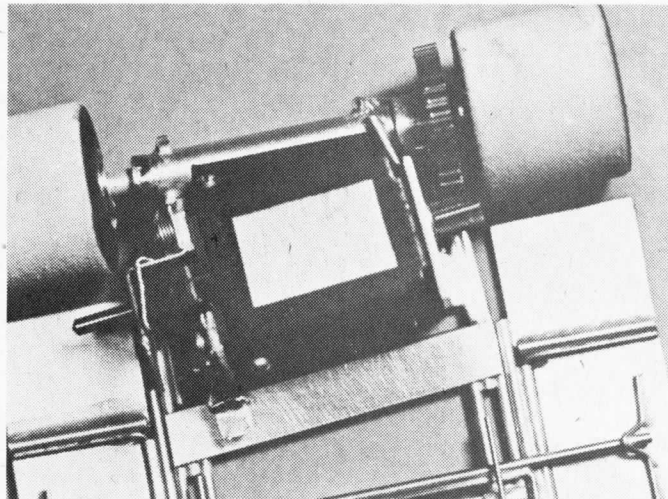
STEP 19 Before you get too excited and bolt everything down tight, eyeball the tires on true. You'll have to rotate the tires on the axle until you find the best spot. Once that is done, crank the tires down and you're done.



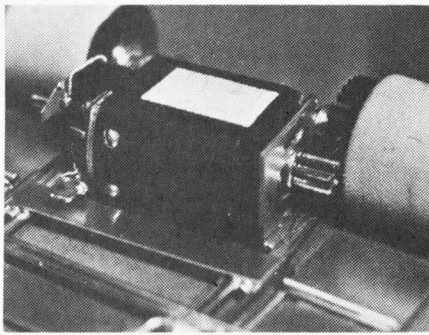
STEP 20 Take your motor from last time and twist the lower buss bar to look like this. Trim. Tape the can holes.



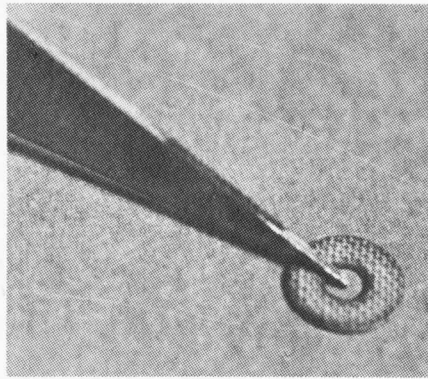
STEP 21 Now we are ready to mount the motor in the chassis and set the gear mesh all at once.



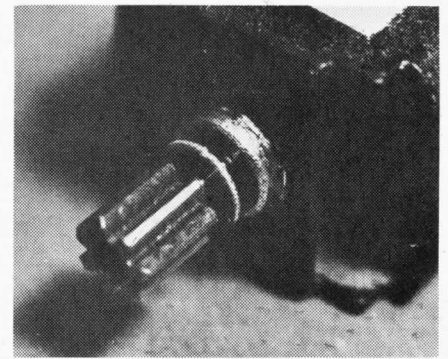
STEP 22 Slip (not pound) your pinion on the armature shaft and drop the unit in the chassis for a minute.



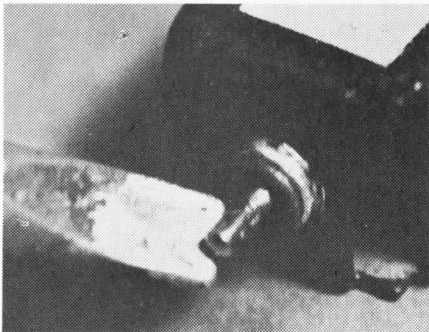
STEP 23 Make certain that everything clears. Trim axle tube and armature shaft to fit, if needed. Things should be ready to mesh about now.



STEP 24 Split one end of a fiber armature spacer.

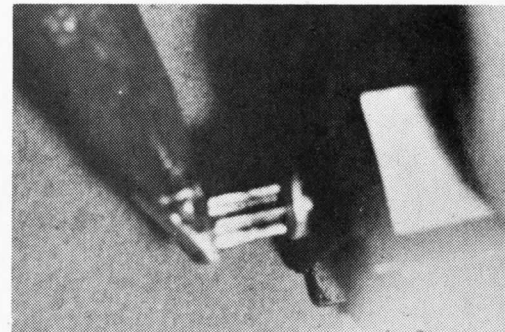


STEP 25 Slip the spacer on the shaft as shown. This will help to keep nasty acid out of the bearing hole.

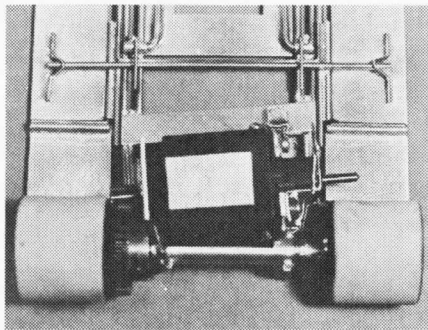


STEP 26 Lightly tin (you know, just a tad) the shaft.

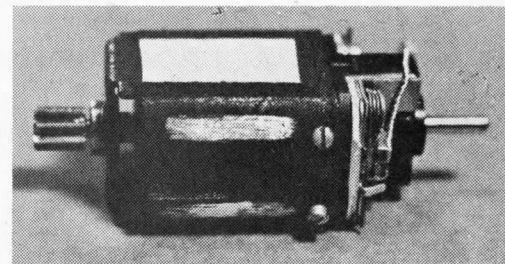
STEP 27 Drop some more acid . . . down the gear hole, guys. Sweat the gear on until it turns poiple (not wed, Goiski). Clean it up and oil the bearing after you remove the fiber spacer.



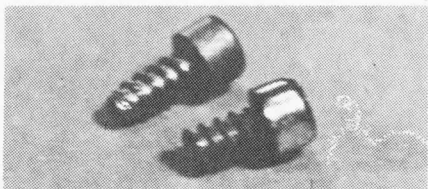
"Ah . . . , that's clean enough, Dona."



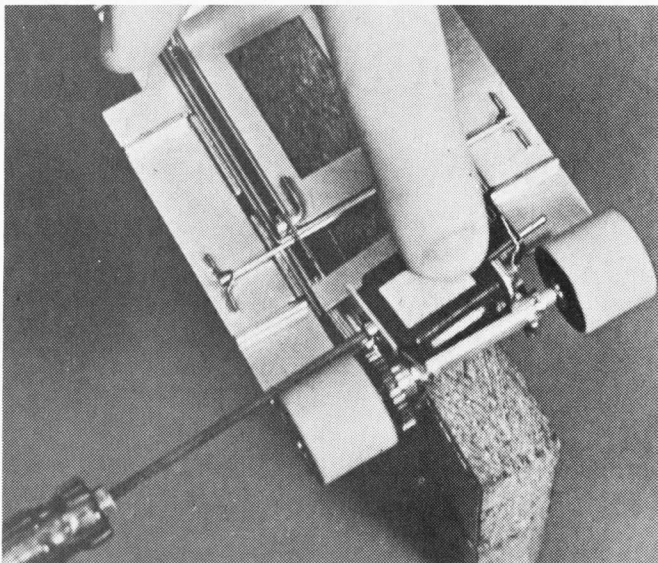
STEP 28 Drop the motor back in the chassis and mark the back of the motor can for soldering areas.



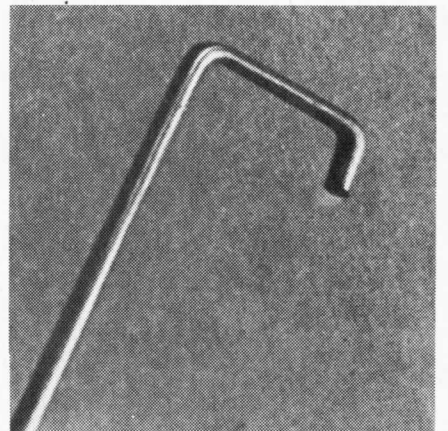
STEP 29 Scrub the paint off between your marks as shown.



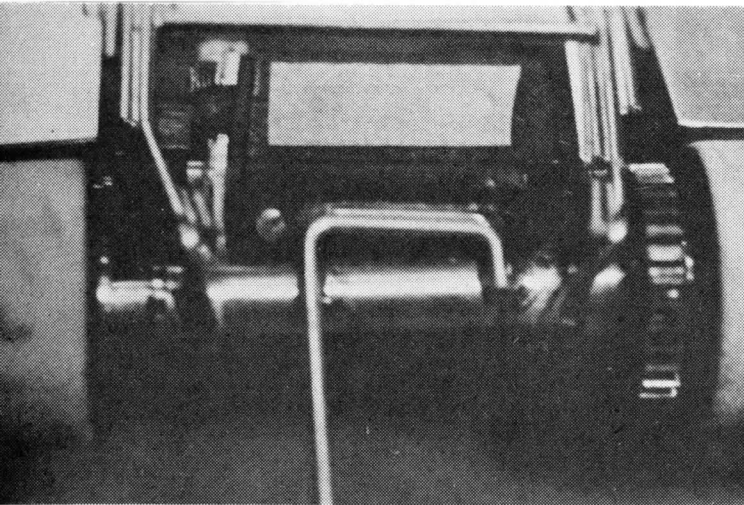
STEP 30 While you're at it, trim one motor screw and polish the opposite end for soldering later.



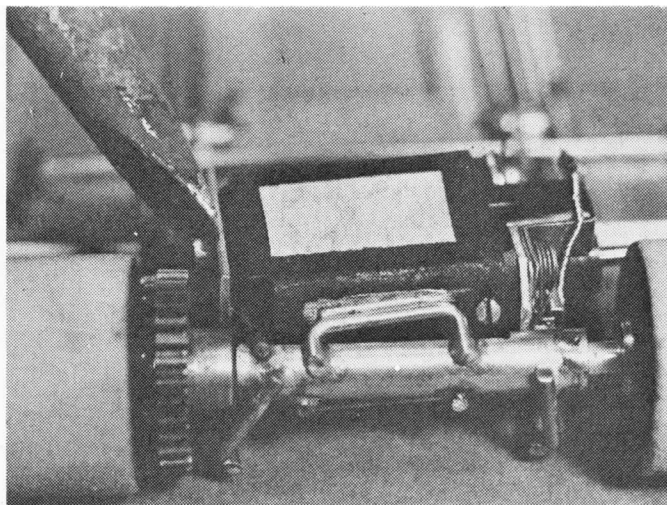
STEP 31 Turn your set-up block on end and drop the motor in. Turn the screw down and set the gear mesh as hit upon in text. The screw just makes mounting easier but if you live on the East Coast you may be ridiculed for doing it this way. At least you won't contract a bad case of gear smash.



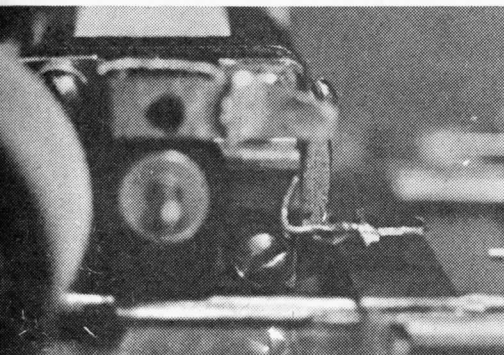
STEP 32 Use .055" wire to bend this cute little nazi.



STEP 33 Solder the nazi (the brace, Elmo) to the axle tube first, then to the motor. Use the long end for a handle if you like.

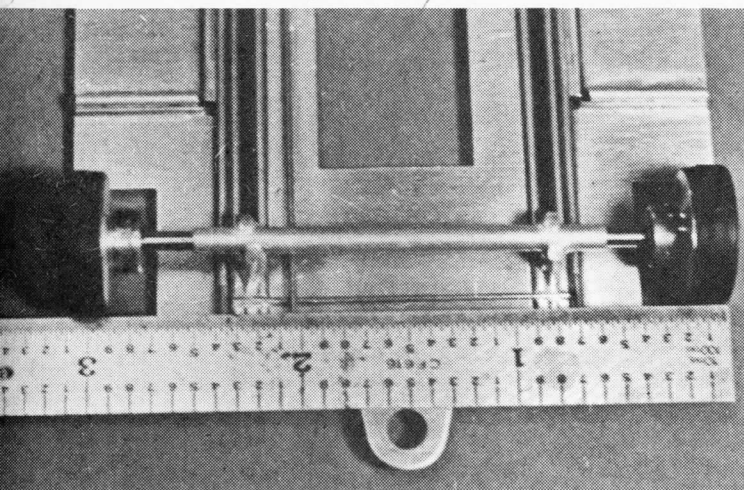
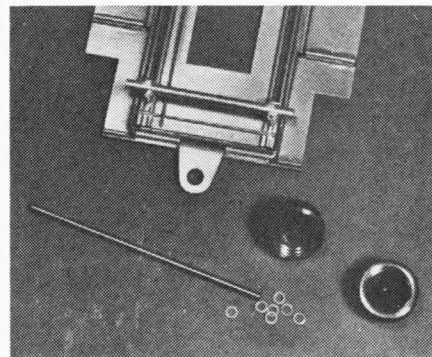


STEP 34 Do it again, Sam. This time on top and tack solder the mounting screw because it's there. Cut off all your excess baggage.

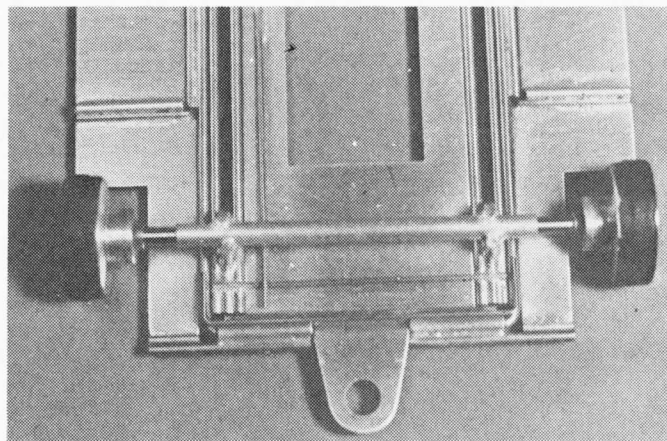


STEP 35 See how neat that buss bar set-up works? So stop admiring your handywork and clean the area a bit.

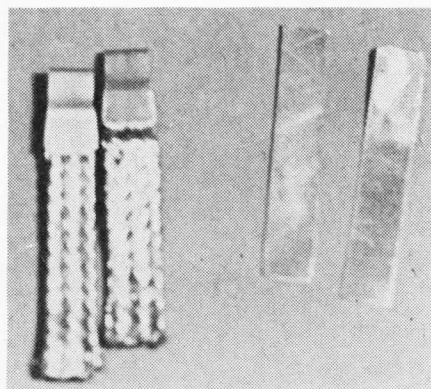
STEP 36 Now we'll do the front-end. Here's the goodies we'll need.



STEP 37 Stick the axle in the front tube and space the front tires at 3.1" again as shown.

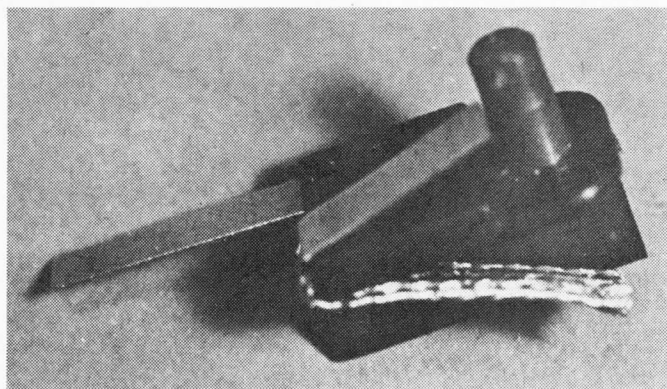


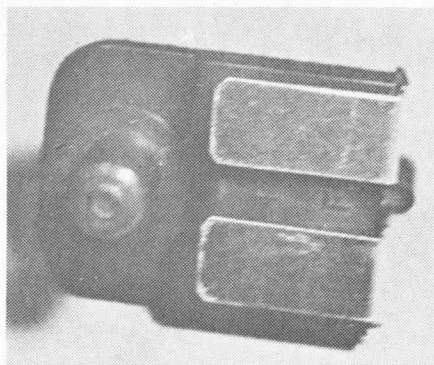
STEP 38 Guesstimate how many spacers you will need to use to keep the front tires from touching the pans. Put them in and lock the wheels down, making certain that the track width is set right.



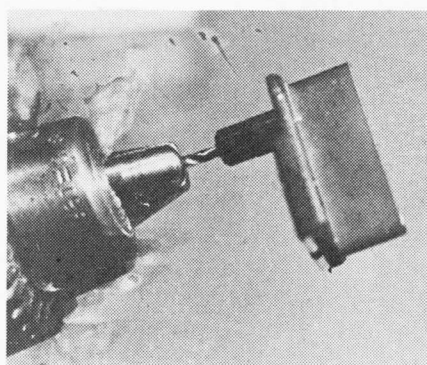
STEP 39 Guide time.

STEP 40 Use some braid-wide strips of .015" brass for guide clips. Jam them in above the braid as shown and bend back around the top of the guide.

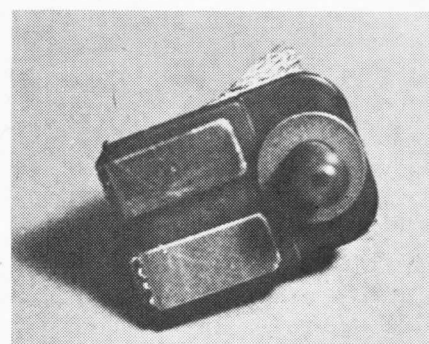




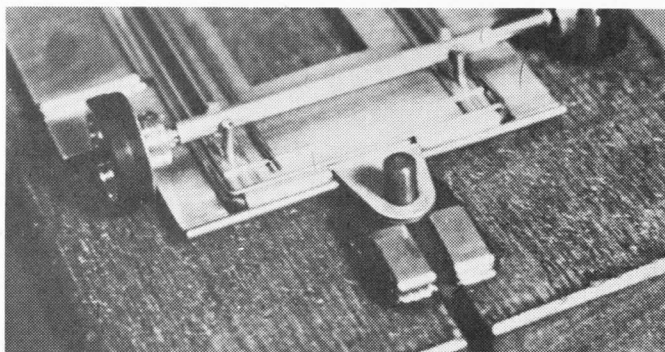
STEP 41 Trim, file and flatten (generally beat on) the clips until they look, and lay in there, like this.



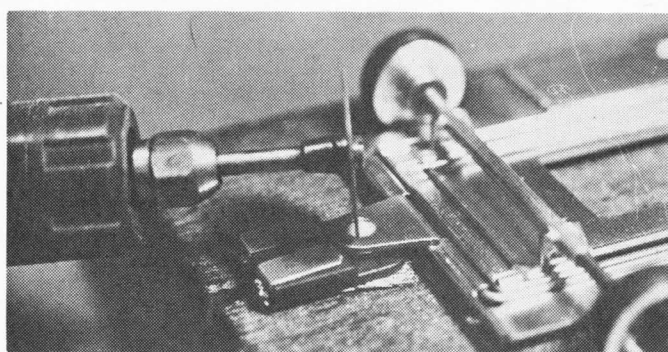
STEP 42 Use a drill bit the size of the guide hole and drill the hole down just into the blade.



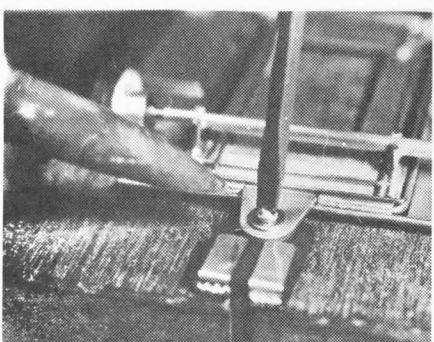
STEP 43 Drop a few spacers on the guide as a starting point for mounting. Don't forget to leave the braid in the guide for this.



STEP 44 Use a test block or slate and fiddle with guide spacers until the front tires just barely touch.

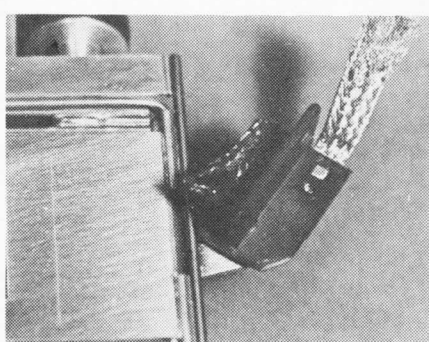


STEP 45 Trim the guide post and detail it down with a Dremel.

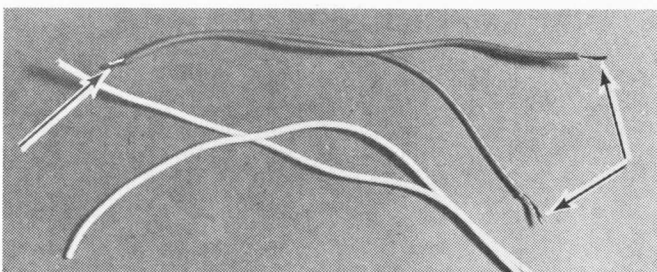


STEP 46 Use your long screw and washer to secure guide in tight. Contrary to popular method, spare the heat and just use enough to loosen the guide up. Use bits of heat at a time until it is as loose as you like it. If the screw comes oozing back out at you, you blew it. Grab a new guide and start again. I know this because it did happen to me... *once.*

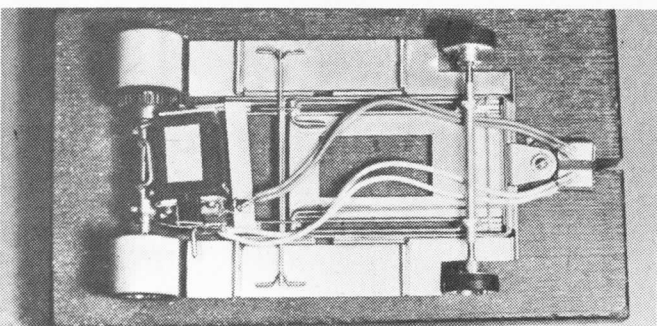
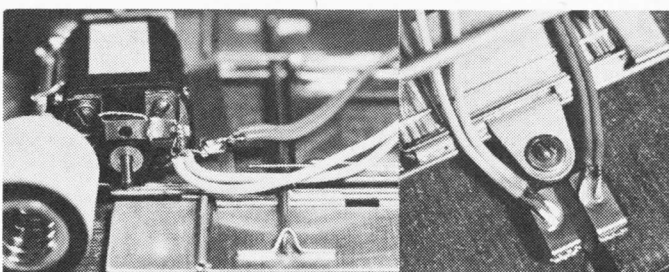
STEP 47 Trim the back of the guide so it may turn this far.



STEP 48 Measure off four lengths of lead wire for your missile. Strip the ends, tin with solder after you twist the ends as shown.



STEP 49 Solder them on to the front and rear tabs as shown. Don't worry about the polarity now. Just bring your mind to the track.



A 'wuniful,
a'wuniful.

"You mean to tell me that you finished before I did?"

