

GBPPR 'Zine



Issue #91 / The Monthly Journal of the American Hacker / November 2011

"16. Now for the first time labor had sunk to the level of an object of speculation for unscrupulous Jewish business men; the alienation of property from the wage-worker was increased ad infinitum. The stock exchange began to triumph and prepared slowly but surely to take the life of the nation into its guardianship and control."

--- Adolf Hitler, *Mein Kampf*, Volume One, Chapter Ten: "Causes of the Collapse"

Table of Contents

- ◆ **Page 2 / The Incredible Five Cent Sugar Rocket**
 - ◆ 1985 paper from the Teleflite Corporation on how to make your own model rocket engines.
- ◆ **Page 18 / The Master List**
 - ◆ Old BBS file from the early 1990s with various computer dial-up phone numbers.
- ◆ **Page 25 / The Amazing Cheese Box!**
 - ◆ "Cheese Box" article from 1988.
- ◆ **Page 26 / GBPPR Non-Linear Junction Detector – Part 1**
 - ◆ Experimental tool which can be used to detect hidden electronic devices.
- ◆ **Page 40 / Bonus**
 - ◆ Federal Reserve Cartoon
- ◆ **Page 41 / The End**
 - ◆ Editorial and rants.

The Incredible Five Cent Sugar Rocket

THE INCREDIBLE FIVE CENT SUGAR ROCKET

COPYRIGHT 1985 THE TELEFLITE CORPORATION
ALL RIGHTS RESERVED

As anyone involved in the hobby of model rocketry already knows, commercially manufactured model rocket engines "cost a bloody fortune." At nearly a dollar apiece for even the smallest, it is much more practical and much less expensive for you to simply make them yourself. You can make them from materials available to anyone at your local drug, hardware, and grocery stores, and they'll cost you **AT MOST** about a **NICKEL** each.

Simple and inexpensive to make, these little beauties will take a featherweight model 200 to 300 feet into the air. A ten dollar investment will buy you enough supplies to make **SEVERAL HUNDRED ROCKETS**, and each one will do anything a commercially made engine will do **INCLUDING** igniting second stage rockets and popping parachutes. Here's how to make them. If you don't already have these items around your house, go out, hunt them down, and purchase them as follows.

Go to the local drug store and buy a small container of **SALTPETRE** and a small container of **FLOWERS OF SULFUR**. Saltpetre is also known as **POTASSIUM NITRATE**. Both chemicals are "over-the-counter" items and do **NOT** require a prescription for purchase. In most cases you'll find them in the **PATENT MEDICINES** section along with glycerine, calomine lotion, witch hazel, castor oil, etc. In some stores, due to shelf space considerations, the pharmacist will keep them in the back. If your local pharmacy does **NOT** stock these items, speak to the pharmacist, and he will probably be happy to order them for you.

The saltpetre will come in a 4 to 6 ounce container, and the sulfur will be packaged in the 2 to 4 ounce size. One package of each is sufficient for at least **ONE HUNDRED ROCKETS!**

Next go to the local supermarket and purchase a small package of **POWDERED WHITE CONFECTIONER'S SUGAR**. **SUGAR** is the fuel in the rockets you'll be making, and the **SALTPETRE (POTASSIUM NITRATE)** is the oxidizer. The sulfur plays a role in releasing various gases during the rocket's flight, thus raising propellant impulse and improving rocket performance in general. **FIGURE 1** illustrates the three ingredients in question as they might appear on the shelves of the drug or grocery store. Combine these three substances in the following proportions by **WEIGHT**.

SALTPETRE	63%
SUGAR	27%
SULFUR	10%

Ideally you should have some accurate weighing equipment (i.e., a triple beam laboratory balance), but if you don't, a simple postal or diet scale will do. If you're involved in reloading your own rifle and shotgun shells, your reloading scale will work nicely. Postal and diet scales can be bought in most large department stores for about \$5, and the more accurately you measure your ingredients, the better your rockets will perform.

These little rockets were designed to fly with a very "low impulse" propellant, and we wanted to make the mixing process as simple and safe as possible, so here's what we came up with. Place the properly measured chemicals into a small plastic refrigerator container with a tight fitting lid (a half-pound or one pound soft margarine container works great). Break up any lumps ahead of time with the flat end of a large wooden dowel or a screw driver handle, tighten the cap onto the container, shake the ingredients in the container vigorously together for about three minutes (**SEE FIGURE 2**), and **YOU'RE DONE!**

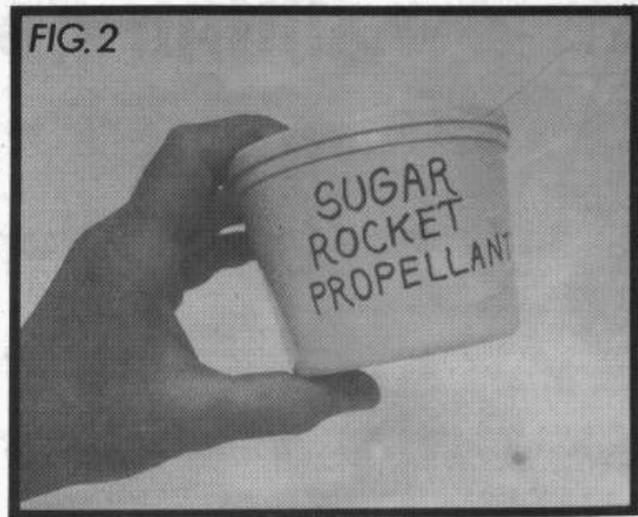
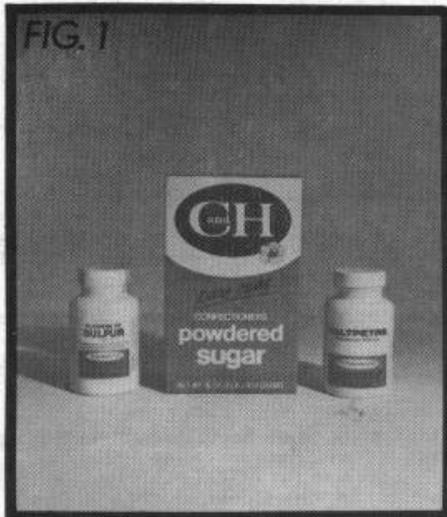


The Incredible Five Cent Sugar Rocket

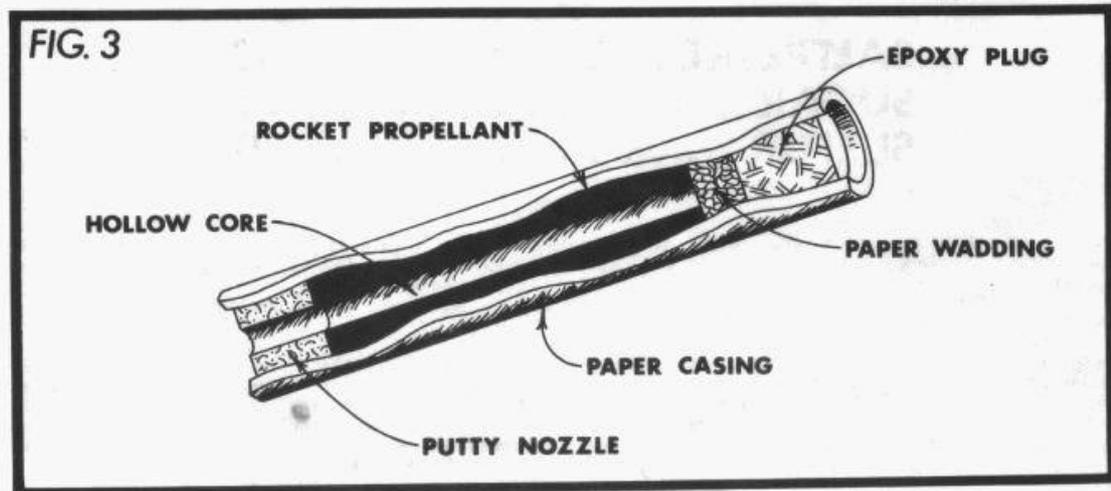
2

WARNING! NEVER ATTEMPT TO MIX THE ABOVE-LISTED CHEMICALS TOGETHER IN A BLENDER OR ANY KITCHEN APPLIANCE DESIGNED FOR MIXING OR GRINDING FOOD! Friction will generate HEAT, and a blender can rapidly (in the vicinity of the bearing and blades) cause the mixing powders to reach the ignition temperature. Six ounces of these chemicals in a blender can cause a flash fire large enough to set fire to your entire kitchen, and after that, YOUR HOUSE! As we said before, we've designed these rockets to use a low impulse propellant, and the length of the core in each engine is just about right to handle the mixture that you've prepared from the instructions above.

NEVER ATTEMPT TO LOAD ONE OF THESE HOMEMADE ROCKETS WITH ANYTHING OTHER THAN THE PROPERLY PREPARED PROPELLANT DESCRIBED IN THIS REPORT, AND NEVER ATTEMPT TO CONVERT OR RELOAD A COMMERCIALY MANUFACTURED MOTOR WITH THIS HOMEMADE ROCKET PROPELLANT!



The finished propellant will be a pale yellow colored powder, and if you were to simply load it into a cardboard tube with a hole in one end, it would burn too slowly to allow a rocket to fly. In order to use this slow-burning material to propel your device into the air, you have to get the powder to burn all at once, and you do this by introducing a "CORE" or bore hole right through the middle of the propellant charge and igniting the propellant all along this core **ALL AT ONCE**. Once you've done this, the propellant will burn along its entire length beginning at the center and burning outward to the inside wall of the motor casing. Rockets constructed in this manner are called "CORE-BURNERS," and they are ideally suited to the use of slow-burning, homemade, low impulse propellants. FIGURE 3 illustrates a cutaway view of a core-burning rocket motor, and if you look at this drawing, you will see all of the basic elements that go to make up the rockets you'll be making.



The Incredible Five Cent Sugar Rocket

This particular mixture of chemicals is "HYGROSCOPIC." That is, if left in an open container, it will absorb moisture out of the air and dissolve itself in it. If you don't keep the propellant container tightly sealed, your propellant will get damp and not burn properly, but if you keep the lid on, it can be stored indefinitely.

Here's an actual recipe you can use. It will make a little over 6 ounces of rocket propellant, and since each rocket uses only 2 to 3 grams, it is enough to make about **EIGHTY** rockets. For those of you with metric weighing equipment we've written the recipe in grams, and for those of you with postal or diet scales we've written it in terms of ounces.

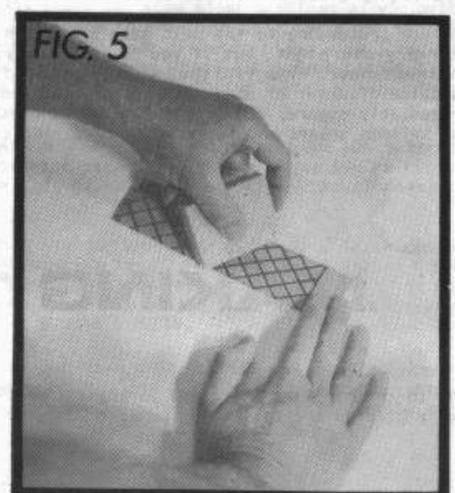
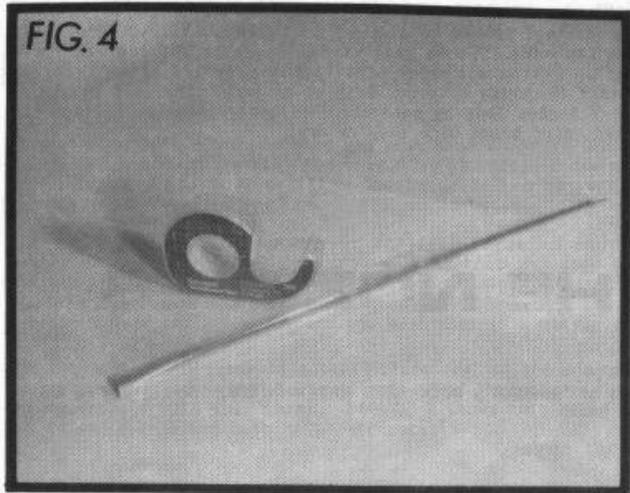
	$\frac{80}{2}$	$\frac{40}{1}$	$\frac{20}{1}$	
SALTPETRE.....	4 OUNCES	2	1	
SUGAR.....	1-11/16 OUNCES	(A HAIR UNDER 1-3/4)		.4375
SULFUR.....	5/8 OUNCE	$\frac{5}{16}$	$\frac{5}{32}$	
OR				
SALTPETRE.....	113.2 GRAMS	$\frac{20 \text{ rockets}}{28.3}$		
SUGAR.....	48.5 GRAMS	$\frac{12-125}{4.4475}$		
SULFUR.....	17.97 GRAMS	$\frac{12-125}{4.4475}$		

Remember when you're weighing things that you must subtract the weight of the container in which you are weighing them. We suggest the use of small, thin, lightweight plastic sandwich bags. They seem to work just fine, and they're just about the right size for the recipes written above.

MAKING THE CASINGS

While you're at the supermarket buying the powdered sugar, go the stationery section and buy a 2 inch wide roll of gummed, brown paper packaging tape. We found ours at the local drug and variety store, the same place where we bought the chemicals. It's made of the same material used in the construction of brown paper shopping bags. It's coated on one side with a water-soluble dextrin glue. The 99¢ roll we bought was 75 feet long, and that's enough to make about **100** rocket casings.

To make an engine casing, proceed as follows. Cut a one foot length of 1/4 inch diameter hardwood dowel (available at a hardware store), and cover it with several strips of "SCOTCH TAPE," layed lengthwise onto the dowel. **FIGURE 4** shows the dowel being covered with the tape. For reasons that you'll understand later, the inside diameter of the casings has to be a little **LARGER** than 1/4 of an inch, and the layers of Scotch Tape will build up the diameter of the dowel just enough to give you the proper finished engine casing I.D.

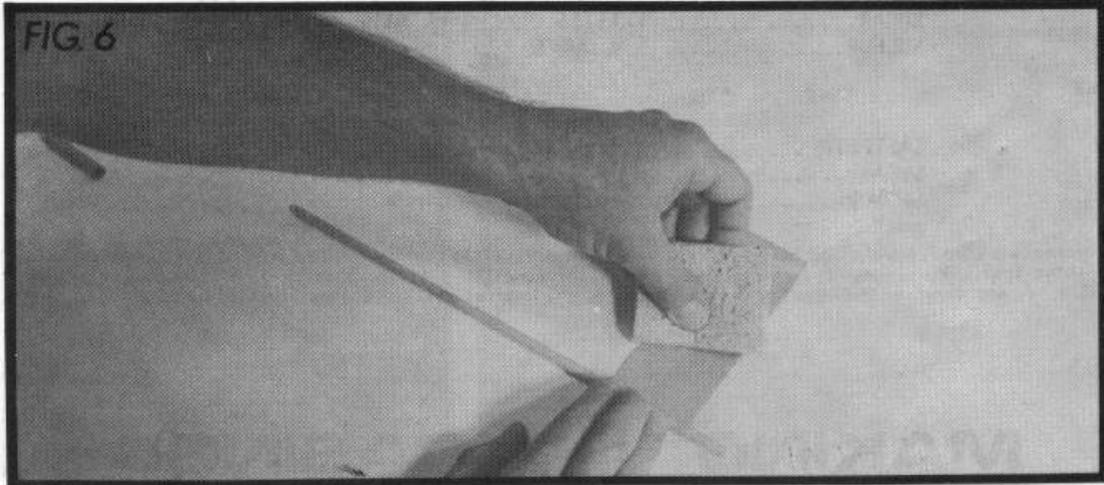


The Incredible Five Cent Sugar Rocket

4

Next cut a strip of gummed paper packaging tape **EIGHT INCHES LONG** and lay it, gummed side **DOWN**, on a smooth, flat surface such as a kitchen counter top. Dampen all but the last inch of the back of the tape with a wet sponge. **FIGURE 5** shows this being done. We've cross-hatched the area you should dampen with black pencil lines, so that you can see it more clearly. Remember, **DON'T** wet the last inch of the tape.

Now turn the tape over and starting at the dampened end, begin rolling it up around the scotch-tape-covered dowel. As soon as you've gotten one layer of tape around the dowel, moisten the **GUMMED** side of the rest of the tape and roll it up around the dowel as tightly as you can, like a jelly roll or a window shade. **FIGURE 6** illustrates this step. You may have to experiment a bit with just how much to dampen each side of the tape, so reconcile yourself to wasting a few strips of tape in the beginning.



Some brands of packaging tape are made from a kind of paper that sort of falls apart if you handle it when it's wet. We told you to leave the last inch of the back of the tape dry. That was so that it would not start to roughen with handling as you finish your rolling and remove the casing from the dowel.

Your biggest problem will be "telescoping." That is, as you continue to roll, the paper tape will start to run off to one side or the other. When this begins to happen, you can correct it in the following manner. If, for example, it is starting to run off to the **LEFT**, then use a single edged razor blade to slit the unrolled portion of the tape right next to the roll. Start the slit at the **LEFT** edge of the tape and cut across the tape to within 1/4 of an inch of the **RIGHT** edge. Once the tape has been partially cut, you can pull it to the **RIGHT** and correct the error. If the tape starts to roll off in the **OTHER** direction, reverse the instructions given above. With a little practice in rolling you'll be able to reduce your errors to a minimum and eventually eliminate the need to make these corrections. When you're done rolling a casing, hold the last edge of the tape firmly against the counter top for a few moments to be sure that it is thoroughly glued down; then slide the finished casing off the dowel and set it aside to dry.

Before proceeding to the next step these finished casings should be allowed to **THOROUGHLY** dry. They will air-dry overnight, but if you're in a hurry, you can bake them in your kitchen oven at 160 degrees for a half-an-hour. The finished casings should have an inside diameter of a little over 1/4 of an inch, an outside diameter of about 3/8 of an inch, and a wall thickness of about 1/16 of an inch. The ends should be reasonably square, and they should be as close to 2 inches long as possible. Slightly inferior casings can be trimmed square and to length with a single edged razor blade once they're dry.

MAKING THE NOZZLES

Go to the hardware store and purchase a small can of "DURHAM'S ROCK HARD WATER PUTTY." While you're there, also pick up the following items:

The Incredible Five Cent Sugar Rocket

5

1. K nitrate
2. Sul Per
3. Sugar

- ✓ 1. ONE PACKAGE OF EPOXY GLUE (part A and part B)
- ✓ 2. A FEW "SIX PENNY" UNGALVANIZED FINISHING NAILS
- ✓ 3. ONE LENGTH OF 1/4 INCH DIAMETER HARDWOOD DOWEL
- ✓ 4. A 7/64 INCH DIAMETER DRILL BIT
- ✓ 5. A 1/8 INCH DIAMETER DRILL BIT
- ✓ 6. Putty
- 7.

FIGURE 7 shows the supplies listed above. We bought the smallest can of **WATER PUTTY** they had, and it is **MORE** than sufficient. The label says it's made by the Donald Durham Company in Des Moines, Iowa. **DURHAM'S ROCK HARD WATER PUTTY** is an old standby in most hardware stores and is commonly used for filling holes in wood and patching cracks in plaster. It sets up **EXTREMELY HARD**, and unlike other wood and plaster fillers we tried, it **DOESN'T SHRINK!** If the first place you go doesn't have it, look around in a few other stores. It works better than anything else you'll find, and it **WON'T** dull the drill bit used to make the nozzle holes.



Six penny finishing nails are about 3/32 inch in diameter. You form the "core" of each rocket by packing the propellant down around one of these nails, then removing it when you're finished. All finishing nails have a little row of shallow grooves right near the head that will cause you some minor problems as you pull the finished rockets off the nails. These little serrations will tend to hold and tear out a bit of the propellant. If you live near a hobby shop, you can buy a length of 3/32 inch diameter piano wire (used to make model airplane landing gear). You will have to cut it with a grinding wheel (it's much too hard to snip with wire cutters), but it is smooth along its entire length and will make a better coring mandrel than a finishing nail.

As we stated before, the nozzles are made from **DURHAM'S ROCK HARD WATER PUTTY**, and to make one you're first going to form a little 1/4 inch long plug of putty in one end of each paper casing. To do so you're first going to make yourself a little "depth gauge" to be sure the plug of putty in any given rocket doesn't extend deeper than the required 1/4 of an inch.

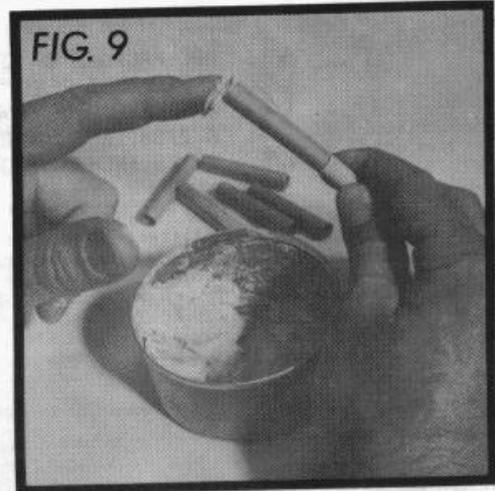
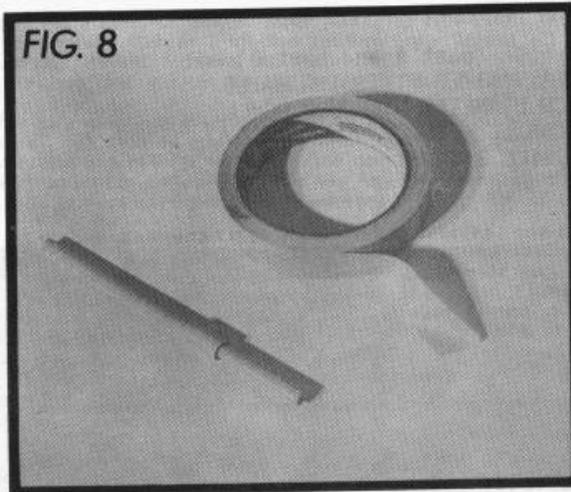
Cut off a six inch length of the 1/4 inch hardwood dowel that you just bought and wrap a dozen or so layers of regular masking tape around it so that one edge of the masking tape is exactly 1-3/4 inches from one end of the dowel (SEE FIGURE 8). Slide a paper rocket casing over the dowel and run the end of it up against this edge of the tape. If you now look into the open end of the casing, you will see a cavity exactly 1/4 of an inch deep, and you must pack this cavity full of **DURHAM'S PUTTY**.

Mix the putty with water in a small "tuna can" to the approximate consistency of stiff bread dough. You can pack each cavity by simply pressing a wad of putty into the end of the casing with your finger and wiping the excess off with your thumb. FIGURE 9 shows this being done. Press the putty firmly into the cavity, and try to avoid creating bubbles or air pockets.

6

The Incredible Five Cent Sugar Rocket

6

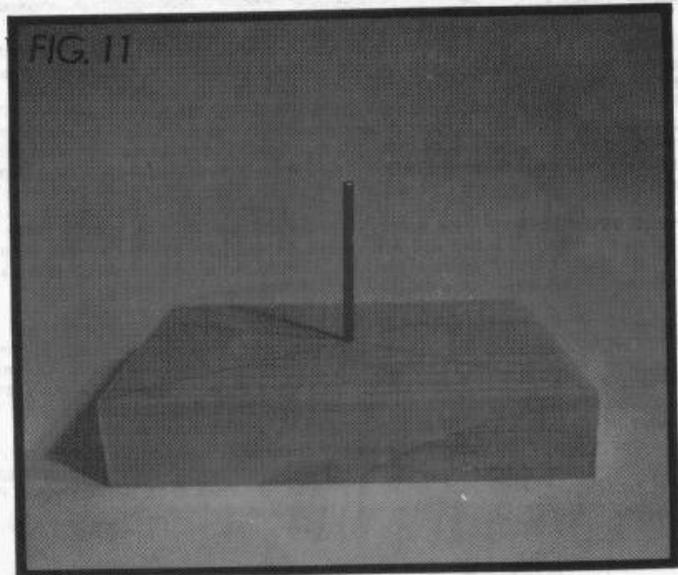
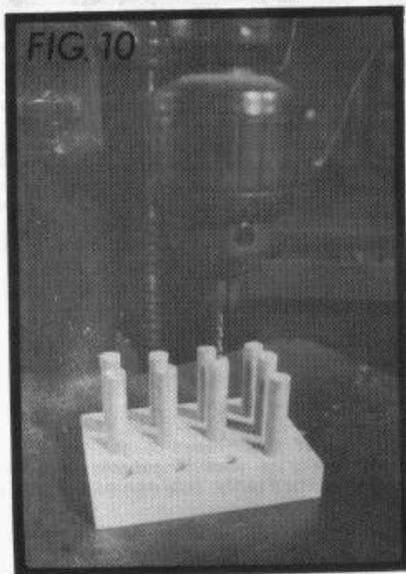


When the cavity has been completely and firmly filled, slowly withdraw the dowel depth gauge. Please note that we say **SLOWLY**. If you pull too fast, the suction created by the pulling action will suck the putty down into the motor casing, and you'll have to start over again. Remember that when you rolled the casings in the beginning we told you to make the inside diameter a little larger than $1/4$ of an inch. We did this so that the dowel depth gauge and the $1/4$ inch diameter powder tamp you'll be using in the next step would slide easily in and out without binding.

DURHAM'S ROCK HARD WATER PUTTY dries quite slowly, and you should let the plugged casings sit overnight before proceeding. You can, however, speed-dry them by laying 50 or 100 of them on a cookie sheet in your oven and heating them at 140 to 160 degrees for an hour to an hour-and-a-half.

Once the putty is hard and dry, drill a $7/64$ inch diameter hole completely through the center of each dried putty plug. If you are careful, you can hold the tiny drill bit between your thumb and forefinger and hand-twist it through, but if you have access to a power drill, or better yet a drill press, you can work much more quickly and accurately.

You can make yourself a little jig to hold the casings upright under the drill by simply drilling a series of $3/8$ inch diameter holes in a small, thick block of wood. **FIGURE 10** shows such a device in use. Stand the casings, puttied ends **UP**, in the holes in the block, mount your $7/64$ inch drill bit in your drill press, and go to work. Work carefully, and try to keep each hole well centered. The more accurately each hole is drilled, the more accurately each rocket will fly.



LOADING THE PROPELLANT

As we stated in the beginning, these little rockets are "core-burners." You make a core-burner by packing the propellant down around a dowel or "mandrel." When the mandrel is withdrawn, it leaves behind a hollow core. It's that simple, and the mandrel we use for these tiny rockets is one of the six penny finishing nails that you bought (or better yet, a short length of 3/32 inch diameter piano wire).

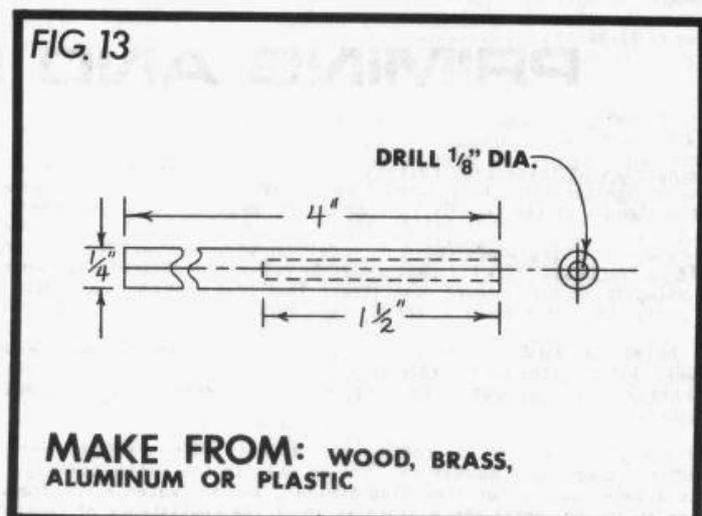
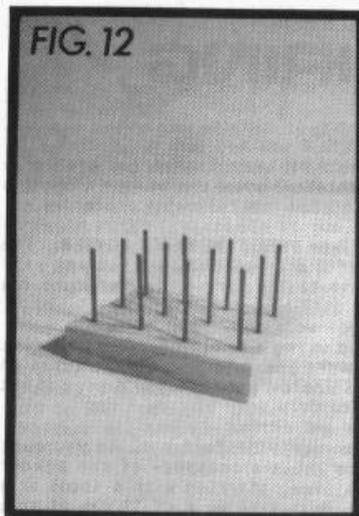
The cores or bore-holes in these little motors should be about 1-1/4 inch long. The core starts at the inside edge of the nozzle plug and extends forward to the inside edge of the forward bulkhead plug. The nozzle plug is 1/4 of an inch thick, so the entire mandrel should be (1/4 inch + 1-1/4 inch) 1-1/2 inch long.

To make a mandrel, use a tack hammer (or any small hammer) to pound one of the 6 penny finishing nails into a block of wood. Then use a pair of "dikes" or wire cutters to snip it off to a length of exactly 1-1/2 inches (SEE FIGURE 11). If you're using piano wire instead of a nail, drill a 3/32 inch diameter hole in the block, roughen up one end of the wire with sandpaper or a file, and glue the roughened end of the wire into the hole in the block with the epoxy glue that you bought. When the glue is completely hard, grind the wire to length with a grinding wheel.

We decided that it would be nice to be able to load a dozen or so rockets at once and proceed with each of the final steps in groups of twelve, so we made **ONE** block of wood with **TWELVE** mandrel wires on it, each one exactly 1-1/2 inches tall. FIGURE 12 shows the tool. To use it simply set each drilled rocket casing over one of the wires, drilled end **DOWN**, and you're ready to start loading.

NOW COMES THE TRICKY PART. To load the sugar-based rocket propellant, you must pack it down around the wire coring mandrels, so the tamp that you use must have a hole drilled right in its center and deeper than the length of the mandrel wire inside the paper casing. You make such a tamp as follows. Cut a 4 inch length of 1/4 inch hardwood dowel, sand the ends square, stand it upright under the drill press, and drill a 1/8 inch diameter hole right down the center of the dowel to a depth of 1-1/2 inches. FIGURE 13 is a small shop drawing of this tool. If you can find a piece of 1/4 inch brass or aluminum rod, you can make yourself a much nicer and more durable tamp. **DO NOT USE STEEL!** Since your coring mandrels are made of steel, there is a slight chance (albeit a small one) of generating a spark should the tamp and the mandrel strike one another during the loading process. Brass against steel and aluminum against steel will, in most cases, **NOT** spark, and we consider either of these to be safer to use.

If you're having trouble figuring out just how to accomplish this task, try making yourself a little jig, similar to the one you used to hold the casings upright, to hold the 1/4 inch dowel upright under the drill. If you have access to a machine lathe, of course the job is a "piece of cake." Anyone with a lathe can finish it for you in about five minutes. FIGURE 14 shows a dowel being drilled using the drill press jig mentioned above.

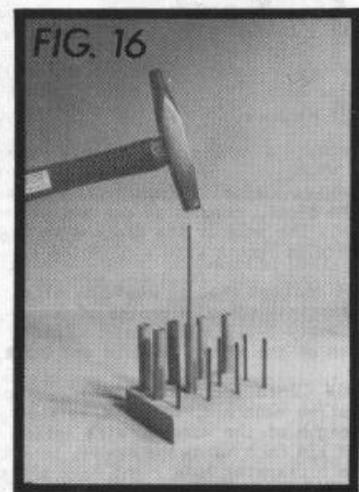
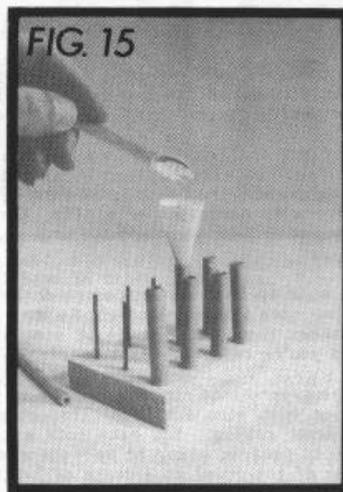
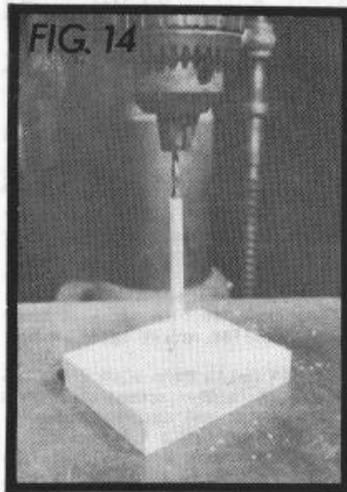


The Incredible Five Cent Sugar Rocket

8

Next make yourself a tiny paper funnel, place it over one of the open rocket casings, and fill it with about 1/8 teaspoon of sugar-based rocket propellant (SEE FIGURE 15). Using a small wire or stick, poke enough down into the casing to fill it about half full, remove the funnel, and insert the dowel tamp you just made (drilled end **DOWN**) into the end of the casing. Using a small hammer, pack the propellant down around the wire mandrel with four or five good, solid hits (SEE FIGURE 16).

Remove the tamp and add another dose of rocket propellant. Reinsert the tamp and pack this second dose in tightly. Remove the tamp again, and look down into the end of the rocket casing. Keep filling and tamping in the manner described above until the tamped powder just reaches the top of the wire coring mandrel. Now wad up a small piece of Kleenex tissue, or paper towel, and pound it in on top of the powder. This Kleenex plug keeps the epoxy glue used to plug the front of the rocket from running down and sticking to the coring mandrel.



Once the Kleenex plug is in place, fill the remainder of the casing with epoxy glue. When we do it, we mix up enough glue for a dozen or so rockets, and use a small stick to "droozle" the glue down into the open rocket casings. You **CAN** use five-minute epoxy if you wish, but we advise you to stay away from it. It will gel so fast that you will most likely waste a large portion of each batch. If you instead use the slow-setting variety, you will have enough working time to make use of **ALL** of what you've mixed. Once the epoxy has hardened, you can twist and pull each rocket off of its respective mandrel, and **YOU'RE DONE!**

PRIMING AND FIRING

The nozzles of these tiny rockets are so small, that it is virtually impossible to insert any kind of a fuse or igniter into their cores. Additionally, the best performance is obtained when the powder along the entire length of the core is ignited **ALL AT ONCE**. To accomplish this we adopted the following procedure.

Go to the sporting goods store or local gun shop and purchase a can of FFF or FFFF FINE BLACK POWDER. The FFFF is the best. It will cost about \$7 (as of the date of this writing) for a one pound can, but you will be using it in such minute quantities, that that one pound can will last virtually forever (a one pound can is enough to ignite about 2,000 of these rockets).

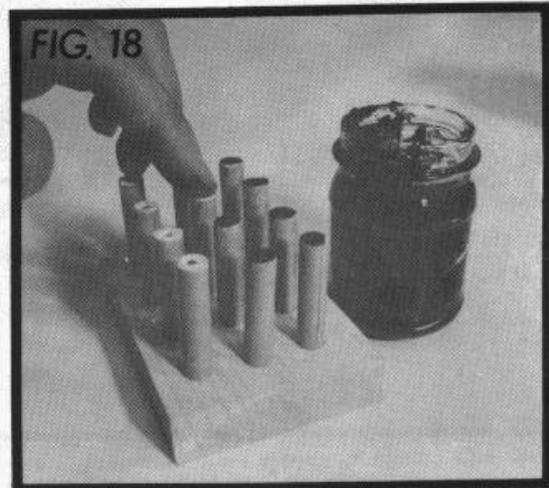
To "PRIME" or "FUZE" one of these rockets stand it on end, nozzle-UP, and using a small paper trough (SEE FIGURE 17) fill the entire core hole right up to the top with the black powder you just bought. It takes an amazingly small amount to do this, and if you were to weigh it out, you would find that you'd used about 2/10 of a gram.

Obviously if you turn the rocket over at this point, all the priming powder will fall out, so you must "CAP" it to keep the powder in. You do this in the following way. Place about a teaspoon of the powder into a baby food jar or something similar, and add water a few drops at a time, stirring with a spoon or a stick as you go, until the mixture is about the consistency of toothpaste. Next take up a small dab of this

The Incredible Five Cent Sugar Rocket

9

black powder paste on the tip of your finger (SEE FIGURE 18), and smear it over the nozzle hole of the rocket that you just primed. Be sure to **COMPLETELY** cover the hole, set the rocket aside, and allow this powder-paste cap to dry for a half-an-hour or so.



This dried black powder cap will seal the core hole, keeping in the loose priming powder, and at the same time will act as an igniter. All you need do to fire the rocket is to touch this cap with a burning fuse or an electric igniter. The cap will instantly take fire, transfer the fire to the loose priming powder inside the core, and ignite the propellant inside the rocket.

WARNING! DO NOT ATTEMPT TO USE "SMOKELESS" NITROCELLULOSE POWDERS. You will just be throwing your money away. Unless they are tightly confined inside a rifle or pistol shell, they will burn so slowly as to be totally useless.

NOT ALL GUN SHOPS SELL BLACK POWDER. Black powder (especially the **FFFF** grade) works better than anything else we've tried, and it is **DEFINITELY** worth going a little bit out of your way to obtain a can of it. IF, however, you **CAN'T** find it, the Hodgdon Powder Company of Shawnee Mission, Kansas manufactures a fairly good substitute called "PYRODEX." Most gun shops that do **NOT** carry black powder **DO** carry Pyrodex. It is a little more expensive than black powder, and it burns a little slower, so your rockets will ignite a little slower, lift-off a little slower, and not go quite as high as they would, had they been primed with real black powder. Pyrodex comes in **TWO** grades, Coarse for rifles and Fine for pistols. The Fine stuff is called "PYRODEX P," and this is what you need to ask for.

The easiest way to fly one of these little rockets is to simply glue it onto a guide stick. If you live near a party shop or a large supermarket that handles Bar-B-Que supplies, you can buy a package of "HIBACHI STICKS," also known as "SHISH KABOB SKEWERS." They're made of bamboo; they're used to skewer small morsels of meat and other cooked foods, and they make **PERFECT** guide sticks for your rockets. **FIGURE 19** shows a package of them. They are **VERY** cheap (less than a penny apiece), and they're flexible, so that if one is a little crooked, it can be easily bent back straight.

You can affix one of them to a rocket with a drop of instant cyanoacrylate model cement (i.e., "Hot Stuff," "Jet," etc.), or you can use a drop of white glue and a single wrap of ordinary masking tape. Your rockets will fly a little better if they are slightly streamlined, and you can do **THIS** by fashioning a little "witch's hat" nose cone out of paper and masking tape and gluing one onto the nose of each rocket. **FIGURE 20** shows a dozen rockets all primed, glued to their sticks, and ready to fire. You can use a piece of "CANNON FUSE" (available at gun shops specializing in black powder and muzzle loading supplies), or an electric igniter. To ignite one of these rockets electrically simply tape a filament of wire from a piece of coarse steel wool over the priming cap, attach each end to an electrical lead (Radio Shack sells some tiny little alligator clips that work perfectly), attach the leads to a strong battery (i.e., a 6 volt lantern cell or a car battery), and fire by closing a switch to complete the circuit. The electric current will make the steel wool wire glow red hot, then burn and ignite the priming cap.

You can launch these rockets from a small tube, the neck of a bottle, or from a soda straw stuck into the ground, and when primed with **FFFF** black powder and fired vertically, each one will achieve an altitude of **150 to 300** feet. If you wish to see a slow and realistic lift-off, either prime with Pyrodex or **DON'T** fill the core all the way to the top with black powder. Put **JUST A LITTLE** in. The propellant inside the rocket will take fire more gradually, and you will witness a slow lift-off reminiscent of a larger rocket.

The Incredible Five Cent Sugar Rocket

10

FIG. 19

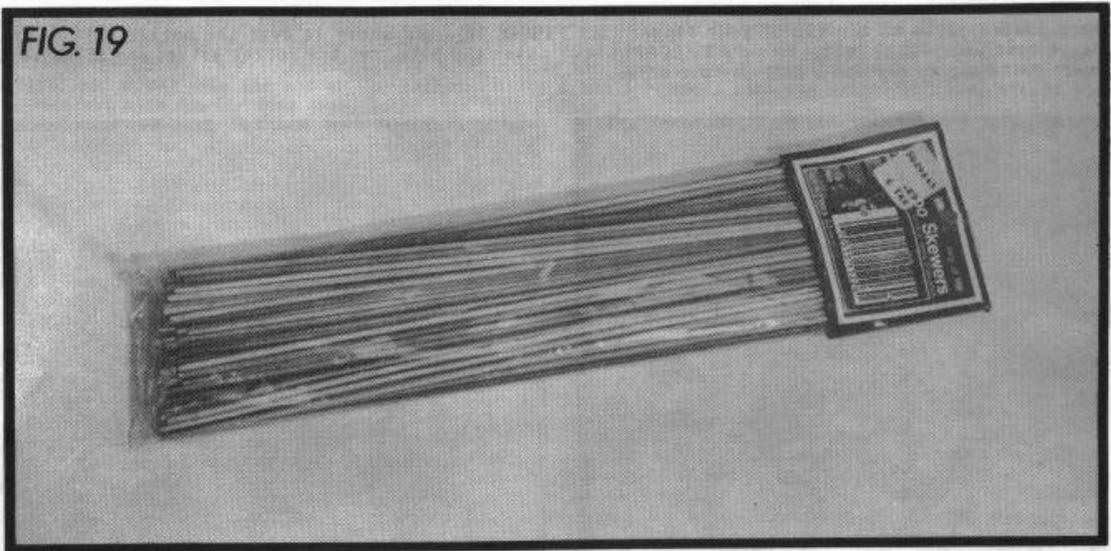
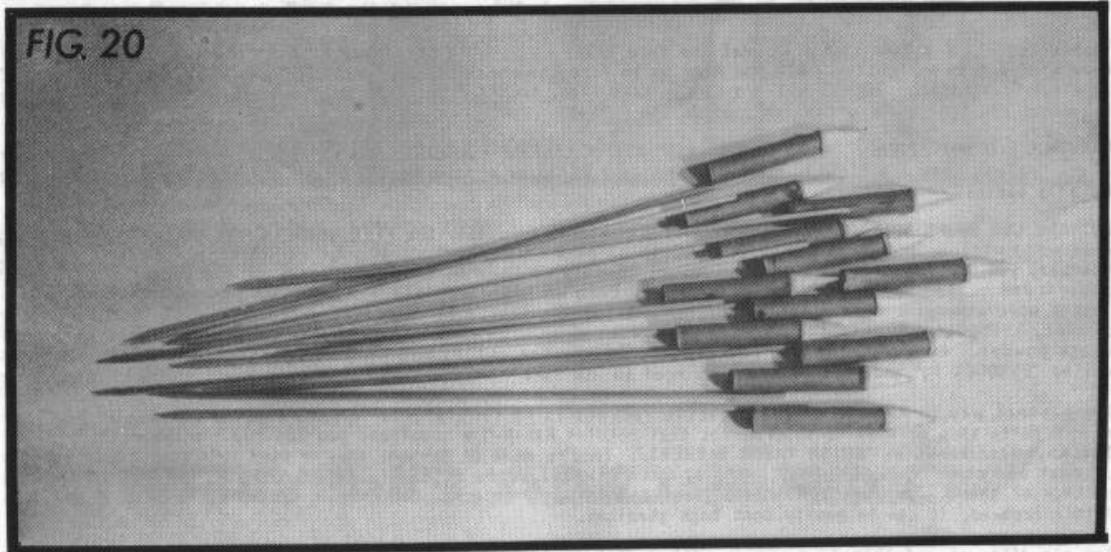


FIG. 20



TIME DELAYS, PARACHUTE EJECTION AND TWO STAGE ROCKETS

Once you've become familiar with these little two inch rockets, you can begin to experiment with delay fuses in the front of each motor. A rocket similar to the ones you've been making with a time delay added to its front is capable of doing anything that a commercially manufactured "model rocket" engine can do, including igniting a second stage engine or popping out a parachute.

To advance to this next stage in rocket construction you'll need to buy a few extra items. In order to provide room for a time delay in the front of each rocket, you're going to need a longer rocket casing, and to make a longer casing you'll need to buy some wider brown paper packaging tape. The wider tape is usually

The Incredible Five Cent Sugar Rocket

11

NOT available in supermarkets or stationery stores. It is **THREE** inches wide instead of two, and you'll probably have to look in the **YELLOW PAGES** in the phone book and contact a large paper supplier that specializes in packaging supplies. It is also usually **THICKER** than the 2 inch material, so instead of needing 8 inches of it, you'll only need about 6. It will cost \$5 or \$6 for a roll of it, but the rolls are **MUCH** larger (you get about 10 times as much as you get in a 99¢ roll).

To construct a rocket with a time delay in front follow all the instructions given above for the little two inch rockets with the exception of the following: Use a **THREE** inch long casing made from the **THREE** inch wide packaging tape, and when loading the propellant, instead of stopping when you reach the top of the coring mandrel, continue working, using the flat, **UNdrilled** end of the tamp, and pack an extra **1/2 INCH** of propellant in on **TOP** of the mandrel. If the time delay seems a little too long, then shorten the delay to perhaps 3/8 of an inch. If it seems too short, then lengthen it to 5/8 or maybe even 3/4 of an inch. **YOU** experiment a little bit. With a bit of practice you'll be able to achieve quite consistent results. If you wish, you can make a little depth gauge out of a piece of dowel to tell you when you've reached the right level.

You'll also need to form a tiny hole or passage-way through the epoxy plug in the front of each rocket, so that the time fuse inside the rocket casing can ignite whatever bursting charge you have in the nose. You do this in the following way. When you've finished packing the propellant into the rocket, stick a **LARGE** sewing needle (i.e., a carpet needle or "darning" needle) into the propellant right at the **EDGE** of the rocket casing (**NOT** in the middle). Press or tap it into the delay powder to a depth of perhaps 1/8 of an inch. **NOW** firmly pack in your wad of Kleenex or paper towel and **THEN** pour in the front plug of epoxy.

In this case you have quite a bit of room in the front of each rocket, and you **DON'T** need to fill it all the way up. When the glue has thoroughly set and hardened, you can, using a pair of small pliers, twist and pull the needle out of the epoxy, leaving a tiny pin-hole through the plug leading into the time delay powder inside the rocket casing. Large safety pins work great, because you can use one leg of the pin as a lever and eliminate the need for the pliers during removal. **FIGURE 21** shows a group of rockets with their needles and/or safety pins inserted. The epoxy glue has been poured and is just now hardening.

To make a rocket with a simple "report" or "POP" at the end of its flight fill up the tiny hole where the pin was removed with fine black powder or Pyrodex powder, and then add perhaps another 1/10 of a gram (about **HALF** as much as you used to prime the rocket). **NOW** press in **ANOTHER** wad of Kleenex and pour **ANOTHER** epoxy cap on top of **THAT**. When the flame inside the rocket reaches the front of the time delay powder, it will flash through the tiny powder-filled pin hole and ignite the powder in the nose, creating in effect, a miniature fire cracker and a small puff of smoke in the sky at the end of the rocket's flight.

If you wish to use the time delay to pop a parachute, fill the tiny pin hole with fine powder and add a much smaller amount of powder on top of this. Instead of capping it with another epoxy plug, cut a disk of stiff paper from a 3 x 5 inch file card about 3/8 of an inch in diameter, and using one end of your powder tamp, press the paper disk into the nose of the rocket on top of the loose powder mentioned above, sort of like an upside down bottle cap. If you're using the little rocket engine in a small model rocket, the loose powder under the paper cap will ignite at the end of the time delay. The expanding gases will force out the paper plug, pushing the recovery wadding and the model's parachute out ahead of it. If this doesn't seem clear to you, we suggest that you go to a hobby shop and purchase a small model rocket kit **WITH** engines. Go ahead and put it together and fly it few times. **THEN** you will realize what we are talking about and how much money you can save by using these little homemade rocket motors.

The amount of powder needed to pop out a parachute is **INCREDIBLY** small; perhaps 1/10 to 1/5 as much as you needed just to prime the rocket. Be careful, because if you put in too much, it will tear the shock cord and the parachute right out of the front of your model! Just the tiniest **"PINCH"** is all that is required.

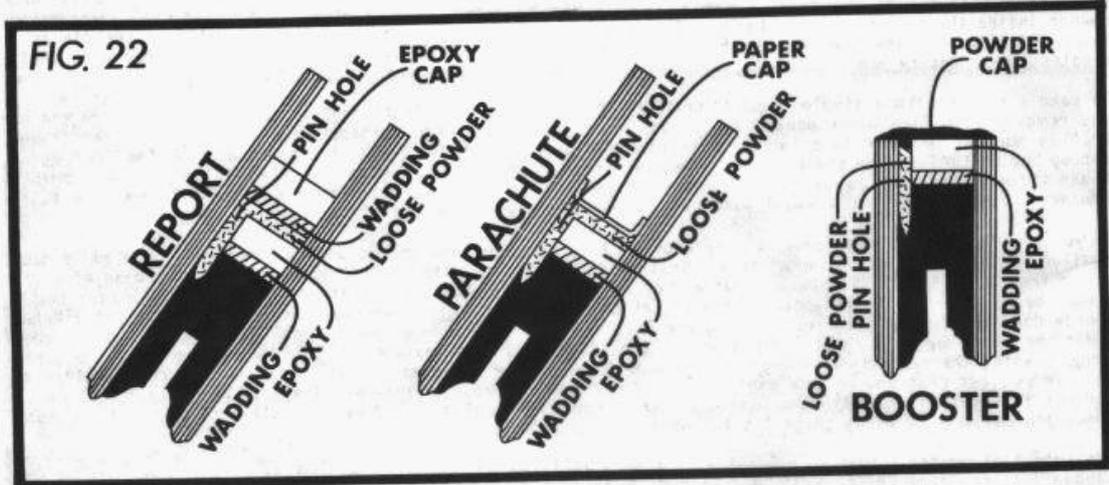
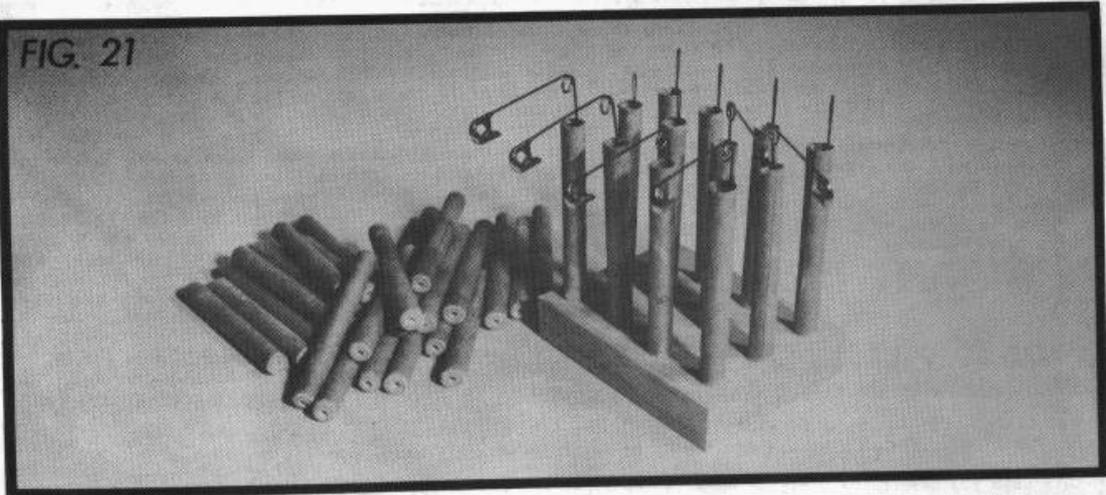
If you wish to have your rocket ignite a **SECOND** stage, then do as follows. Immediately upon removing the needle or safety pin from the front epoxy plug, use a single edged razor blade to cut the excess length of casing off right at the front of the front plug. Then fill the tiny pin-hole with loose powder and cap the **FRONT** of the rocket with the powder paste just as you did to the rear end when priming it for firing. **BE SURE TO MARK THE FRONT OF THE ROCKET**, as once the ends are capped, you won't be able to tell which end is which.

When you want to ignite a **SECOND** stage, simply place the priming cap of the **SECOND** stage engine in contact or close proximity with the **FRONT END** cap of the "booster" or **FIRST** stage motor. When the flame in the first stage motor reaches the front of the time delay powder, it will ignite the cap at its **FRONT**, which in turn will light the priming cap of the **SECOND** stage engine. **FIGURE 22** shows a cutaway pen sketch of each of the three options we've just discussed.

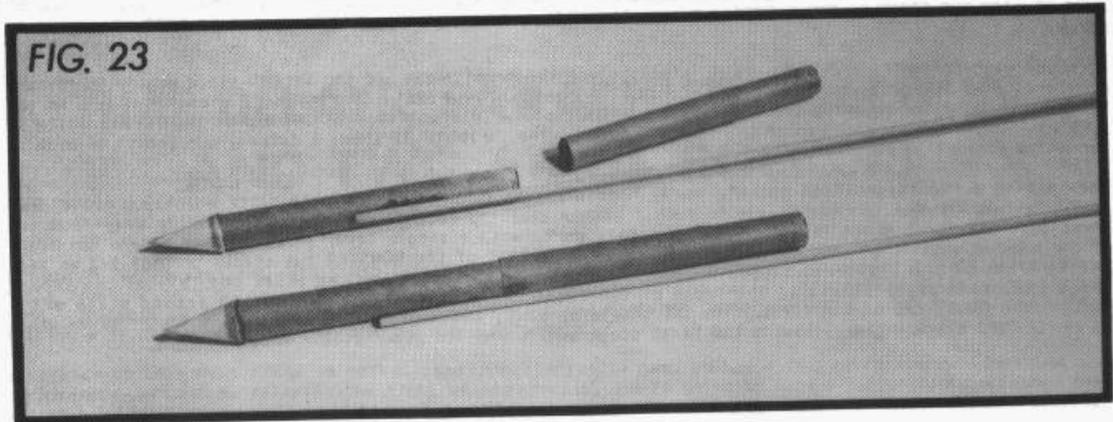
When making a two stage **STICK** rocket, you'll need a longer stick to balance the extra weight up front, **AND** you'll have to connect the two stages in such a manner that the second stage can slide easily away from the first once the first stage is spent. To make this work, wrap a single layer of paper tape around the front of the booster engine, so that the tape is **GLUED** to the **FRONT** of the **BOOSTER** but sticks perhaps 1/2 an inch out in front of the finished, capped engine. Once the glue is dry, you can **SLIDE** the tail of the second stage **INTO** this paper sleeve at the front of the first until the priming cap of the second stage motor touches the **FRONT** cap of the first. The fit should be **SNUG**, **NOT** loose. Glue or tape the longer guide stick to the **SECOND** stage engine, leaving the first stage engine and its paper sleeve free.

The Incredible Five Cent Sugar Rocket

12



When the first stage motor is spent and ignites the second stage rocket, second stage ignition will blow the first away, sending the paper sleeve with it. FIGURE 23 shows a photo of a two stage rocket assembled and ready to launch AND DISASSEMBLED so that you can see how the first and second stages fit together. The longer stick is made by simply gluing and taping two shorter ones together.



ADDITIONAL COMMENTS AND SUBSTITUTIONS

Use a **SHORTER** time delay for your "booster" motors than you use for your upper or single stage rockets. The delay should be in the range of 1-1/2 seconds. Once again, experiment a bit to achieve the right performance.

If you **CAN'T** find **DURHAM'S ROCK HARD WATER PUTTY**, you can make a suitable substitute by mixing regular white baking flour with epoxy glue to the consistency of stiff bread dough.

For two stage rockets you need plenty of power to lift the extra weight of the second stage. You can make a more powerful propellant by trying to obtain more finely powdered versions of the required chemicals. **FLOWERS OF SULFUR** found at the drug store is actually fairly coarse. You can obtain a more finely powdered form of sulfur by going to a nursery or fertilizer supplier and asking for a small bag of "**DUSTING SULFUR**."

The powdered sugar available at the supermarket is obviously ideal, but the potassium nitrate that you got at the drug store is also obviously **NOT**. About the consistency of table salt, it is too coarsely ground to allow you to make a really fast-burning propellant. You **CAN'T** grind it up in a blender. It will simply pile up and stick to the sides of the container, but if you have or know someone who owns a "rock tumbler," used by hobbyists to polish small gemstones, you can render it to an extremely fine state by placing a measured amount into the tumbler along with a few dozen glass marbles and running them together for several hours. As the marbles roll over one another they will grind the nitrate to a fine powder. Use this powder along with **DUSTING sulfur** and follow the instructions at the beginning of this report, and your efforts will result in a rocket propellant of superior qualities.

You can also adjust your rockets' performance by either lengthening or shortening the coring mandrels and thereby deepening or shortening the propellant cores, adding more or less propellant respectively to a given rocket. If your rockets fly a little poorly and you can't seem to make a stronger propellant, then make a **LONGER** coring mandrel and a **DEEPER** propellant core with a little **MORE** rocket propellant, and you should notice a distinct improvement. If they explode like firecrackers or blow out their ends, then **SHORTEN** the mandrel, make the propellant core, itself, **SHORTER** and use **LESS** propellant accordingly.

AS ALWAYS, PLEASE FOLLOW ALL LOCAL, STATE AND FEDERAL FIRE AND SAFETY REGULATIONS, and be sure to CONSIDER THE HEALTH AND SAFETY OF YOURSELF, EVERYONE AROUND YOU, AND THEIR PROPERTY. IF YOU SET A FIRE WITH ONE OF THESE ROCKETS OR INJURE YOURSELF OR SOMEONE ELSE IN THE PROCESS OF MAKING ONE, it will REFLECT BADLY ON THE HOBBIES OF MODEL AND AMATEUR ROCKETRY AS A WHOLE and may result in even MORE REPRESSIVE LEGISLATION THAN ALREADY EXISTS.

The propellant described in this report is very benign when compared to most. However it **IS** a **ROCKET PROPELLANT**, and **AS SUCH** is capable of causing property damage or serious injury if mishandled or handled carelessly. **BE A GOOD REPRESENTATIVE OF YOUR HOBBY, and PLEASE BE SAFE!**

HOW TO MAKE A BODY TUBE

For the small model rockets you'll be making for these little motors (i.e., the **MICROSOND 1**) you'll need to make your own rocket body tubes. The technique we like best goes as follows. Thoroughly wet one side of a 4" x 6" (or larger) file card by simply holding it under a stream of running water. Be careful **NOT** to wet the **OTHER** side.

Place the wet card, dry side **DOWN** on a kitchen counter top and watch what happens. As the water soaks into the wet side of the card, the card will begin to curl. After thirty seconds or so pick up the card and wipe off the excess water. Next, taking advantage of the curl, roll the card up around a dowel or mandrel of suitable diameter until the dowel is covered with **ONE** layer of paper. Trim away the excess card with a pair of scissors or a razor blade, leaving enough extra paper to form a small overlap of perhaps 1/8 of an inch. Run glue along this overlap, and press the newly glued seam firmly against the counter top until the seam is thoroughly "stuck together." Remove the finished tube from the dowel and set it aside to dry.

A small rocket made from one of these body tubes will show a little "edge" of paper along one side, but this feature can be easily filled with the balsa sanding sealer used prior to painting the model.

The Incredible Five Cent Sugar Rocket

14

HOW TO MAKE A NOSE CONE

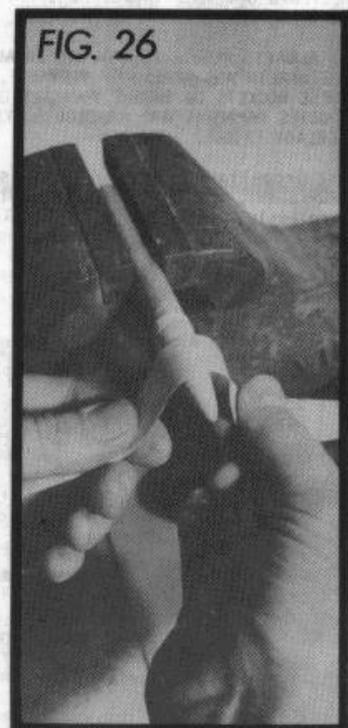
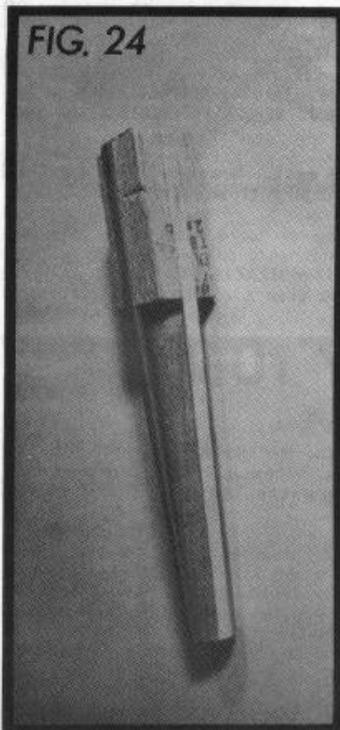
A model rocket nose cone must fit **SMOOTHLY** inside of its respective body tube, but it must **ALSO** have a narrow ledge equal in thickness to the wall thickness of the body tube, so that the outside of the nose cone is "flush" with the outside wall of the rocket body. We make such nose cones in the following way.

Cut a piece of the same dowel used to form the body tube to a length of perhaps 3 inches, and square up one end. Cut an **OVERSIZE** piece of balsa slightly longer and thicker than the finished nose cone and also square one end. Coat the squared ends of the dowel and the block of balsa with aliphatic woodworking glue and allow each piece to dry. Once the glue has set apply a second coat to the end grain of the balsa block and allow it to dry again. **NOW** apply a second coat to the already glue-sealed end of the dowel and firmly press the two pieces of wood together. Clamp with a rubber band and allow to set for several hours. **FIGURE 24** shows the glued and clamped pieces of a nose cone for a **MICROSOND I** rocket. The dowel is 1/2 inch in diameter (the same as the body tube I.D.).

Once the glue has hardened slide a short piece of "sample" body tubing over the dowel and run it up against the end grain of the balsa "ledge." Using an Xacto knife or a razor blade, roughly carve the nose cone to its approximate finished shape. **FIGURE 25** shows this phase of the operation.

When the nose cone has been roughed in, clamp the long end of the dowel in a vise, and periodically turning the nose cone to maintain roundness, finish sand to shape with a thin strip of #180 sandpaper, working the paper strip up and down the length of the nose cone like a shoe shine cloth. **FIGURE 26** shows this being done. The outside diameter of the nose cone has been sanded flush with the outside surface of the body tube sample, and the job is just about finished. When you're done simply slide the body tube sample off the dowel, and cut off all but the last 3/8 inch of the dowel. If the finished nose cone fits too loosely into the body tube, you can build up the dowel diameter with masking tape.

Of course if you own or have access to a wood lathe, you can abandon all the above instructions and simply follow standard lathe procedures. If you **DO** use a wood lathe, **DON'T** attempt to make your nose cone out of balsa. **REDWOOD** works much better and is easier to work with in such a situation.



WANT TO MAKE BIGGER ROCKETS?

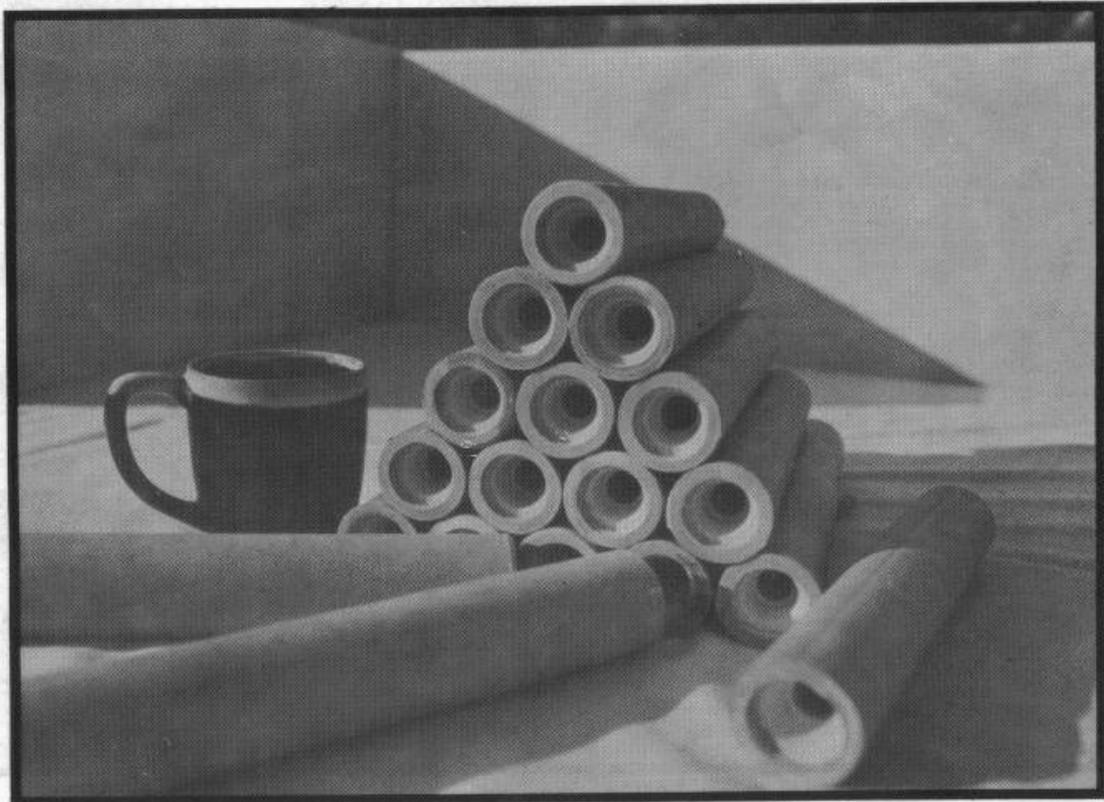
THE TELEFLITE CORPORATION is the only publishing company in the WORLD that offers SOLID, RELIABLE, and THOROUGHLY PROVEN instruction on the making of HOMEMADE rockets and rocket engines. If you enjoyed making and flying the rockets described in THIS publication and want to learn how to make much LARGER and more POWERFUL rockets, we suggest that you order a copy of our complete 148 page rocket engine manual, titled "BUILDING YOUR OWN ROCKET MOTORS."

As in THIS report, the techniques involved, although of necessity a little more elaborate, are basically simple. Tooling is cheap and easy to make, and the materials are all inexpensive and readily available to you in your OWN locality. Once you've ordered the book, you need buy NOTHING else from us.

"BUILDING YOUR OWN ROCKET MOTORS" provides fully illustrated and detailed instructions for preparing a much more powerful rocket propellant, AND it provides complete instructions and plans for making EIGHTEEN different rockets varying in size from a tiny A3 that generates 4 pounds of thrust to a GIANT G100. The illustration below is a photo of a whole STACK of G100 engines. Loaded for bear and ready to fly, each of these rocket motors will generate about 70 POUNDS OF THRUST! Cost to make them? 50¢ to 75¢ each.

BACK COVER PHOTO: An experimental single stage rocket lifts off from a dry lake on a brisk morning in January of 1985. Powered by a SINGLE HOMEMADE G-100 made according to TELEFLITE'S instruction manual, it will achieve an altitude of approximately 5,000 FEET: then float gently back to earth via an automatically actuated parachute recovery system.

AMATEUR ROCKETRY IS A FASCINATING HOBBY. DON'T STOP NOW! KEEP ON LEARNING! If you wish to order a copy of "BUILDING YOUR OWN ROCKET MOTORS," send a check or money order for \$21.95 to: BUILDING YOUR OWN ROCKET MOTORS, THE TELEFLITE CORPORATION, 11620 KITCHING STREET, SUNNYMEAD, CA 92388. CALIFORNIA RESIDENTS ADD 6% STATE SALES TAX. FOREIGN COUNTRIES EXCEPT CANADA ADD \$2.00 FOR SHIPPING AND HANDLING.



The Incredible Five Cent Sugar Rocket



The Master List

THE MASTER LIST

-----[#]>> SYSTEMS <<[#]-----

Easy Link.....	(800)/325-4112
	(800)/325-6397
Federal Information Center.....	(800)/532-1556
IDC.....	(800)/344-1900
General Motors.....	(800)/685-6790
	(313)/685-6709
Tele-Connect (voice).....	(800)/255-2255
Digital.....	(312)/640-5750
Mav Corporation.....	(805)/497-6832
Ford Motor Company.....	(800)/521-4120
	(314)/291-4510
American Network (voice).....	(800)/227-0090
The Source.....	(800)/828-6321
RCA.....type LOGIN for id request.....	(800)/525-3714
	(901)/525-1034,1086,10

87,1671,1672,1678

IBM

Distribution.....	(800)/426-2222
IBM Corp.....	(805)/497-5399
Xerox.....	(800)/828-6321
(TERM ID:A, LOGIN:XCSOTS,LOGIN:CHXCS00,BRA)	(312)/922-4601
Motorola Ditell.....	(800)/323-4756
American Hospital Supply Co (RUNCODE:ORDER).....	(800)/323-9066
PC Pursuit.....	(800)/835-3001
Firmilab...(CLASS:WNUXB).....	(312)/393-5918
Telcor.....	(800)/231-3158
Unkown.....	(800)/521-0019
Johnson & Johnson.....	(800)/253-9892
Law Office.....	(313)/964-5858
Radio Shack.....	(505)/883-6828
Lablink.....	(314)/895-4870
RVS Cablevision.....	(414)/259-1233
Airline.....	(714)/775-2184
Educational Research.....	(713)/792-7200
Smith & Henschman.....	(313)/964-2064
McDonalds (as in Junk food).....	(305)/764-4595
	(312)/938-8600
Repair Computer Center.....	(313)/881-8659
Telemail.....	(800)/424-9494
Heathkit, Inc.....	(312)/852-1305
General Electric.....	(502)/454-5824
	(617)/585-6551
TWA.....	(210)/417-8987
Honda Motors.....	(800)/227-8876
Abbot Labs.....	(312)/937-1210
(LOGIN 202,202 P/W GAMES)	
Washington Post.....	(202)/334-6831
Cleveland Public Library.....	(216)/623-0087
Unitech.....	(617)/864-8255
Commander II.....	(800)/424-9440
	(800)/424-9180
Western Union.....	(800)/325-4112

The Master List

(01,USR999999,TEST.TEST,GON 791462SPHS) send messages

Hewlett Packard.....	(312)/341-0184
Sears.....	(303)/232-8555
Dow Jones (in FL).....	(404)/855-3460
Unknown Travel Company.....	(813)/797-7896
Unknown.....	(914)/623-0402
Unknown.....	(617)/824-6694
Unknown.....	(817)/571-6680
(<2 CR's> LOGIN BORIS, name: JUDY ZIMMERMAN, pw:JAZ)	
AT&T Stock Prices.....	(800)/882-1061

//Banks//

Citibank...(NY,NY)...6 character Password.....	(800)/223-3312
Export/Import Bank.....	(800)/424-5201
1st Nat'l Bank.....	(408)/248-8818
Michigan Nat'l Bank.....	(313)/964-5808
Bank of Bethany.....	(405)/789-2323
Seattle Savings and Loans.....	(304)/376-2488
Bank of America.....	(800)/222-0555
(u#;f31 pw:....d3)	
Highland Park Bank.....	(312)/432-1817
Bank of Louisiana.....	(504)/522-5633
(pw: INFIDEL)	
Nanvet Nat'l Bank.....	(914)/623-0402
Nat'l Bank of Detroit.....	(313)/964-5858
Roosevelt Federal Bank from Home.....	(314)/532-3545
Coldwell Banker.....	(619)/296-5010
Hinsdale Savings and Loans.....	(312)/852-0506

//Schools//

Univ of Louisville.....	(502)/588-6020
Univ of Florida.....	(904)/392-5533
	(904)/644-2261
Univ. of Massachusetts.....	(413)/545-1600
Univ. of New Mexico.....	(505)/227-3351
	(505)/588-3351
Univ. of Perue.....	(317)/494-1900
Univ. of Texas.....	(214)/688-1400
Univ. of San Diego.....	(619)/293-4510
(ID = GUEST)	
Temple Univ.....	(619)/452-6792
Univ. of Hartford.....	(215)/207-1010
	(203)/242-6492
	(203)/242-6852
Univ. of Maryland.....	(301)/454-6111
Univ. of Colorado.....	(303)/644-3841
Univ. of Minnesota.....	(714)/974-4020
Univ. of Virginia.....	(703)/328-8086
(ACCT:HELLO PHYSICS.HOOPER,P/W R2D2a)	
Univ. of Michigan.....	(313)/454-1000
Oakland Univ.....	(313)/370-4399 300 B

The Master List

Harvard.....	(313)/370-4312 1200
	(313)/370-4300 1200
	(617)/732-1802
Wayne State Univ.....	(617)/732-1251
Lyola College.....	(313)/577-2424
Princeton.....	(213)/642-2706
U# : L 2047041 or L60228617	(609)/452-6736
(609)/452-6730	
Northeastern Univ.....	(617)/417-9203
Univ of Kentucky.....	(313)/577-2424
Dartmouth College.....	(603)/643-6310
(ID:M81901,PW:SMI)	
Honeswell Univ.....	(612)/870-6086
Poly Tech Univ.....	(714)/598-4861
Amarillo Univ.....	(806)/741-5951
	(806)/741-6701
Marshall Univ Washington.....	(304)/696-6711
New York State College.....	(212)/777-7600
	(212)/598-7001
Lawrence Institute.....	(313)/356-4040
Arizona State.....	(602)/965-7001
Yale.....	(203)/436-2111
Univ of Missouri.....	(314)/341-2776
	(314)/341-2910
	(314)/341-2141 1200 E
CALTAC.....	(213)/687-4662
Univ of Nevada.....	(402)/472-5065
Stoney Brook Univ.....	(516)/246-9000
DePaul.....	(619)/452-6792
RPI School (???).....	(518)/220-6603
William State Univ.....	(313)/577-0260
Northwestern Univ.....	(312)/492-3094
Circle Campus.....	(312)/996-5100
	(312)/996-6320
Slippery Rock Univ.....	(412)/794-7601
Cal-Tech.....	(213)/499-4040
Univ of Nebraska.....	(402)/472-5065
Queens College.....	(212)/520-7719
Denver Univ.....	(303)/753-2737
	(303)/753-2733
Syracuse Univ.....	(315)/423-1313
Univ of Illinois.....	(312)/996-5100
(Accnt# 2337526672, P/W 4729)	
Joliet Junior College.....	(815)/729-0686
Lowell Univ.....	(617)/459-0159
LOGIN:HELLO ID:91020021	
Rolla College.....	(701)/477-6442
Wabonsee Community College.....	(312)/653-8937
USC.....	(213)/743-7674
UCLA.....	(714)/825-0921
Univ of Oklahoma VAX.....	(405)/325-7113
East Carolina Univ.... (IBM Mainframe)	(919)/752-1923
Illinois School District 214.....	(312)/398-8170
Chicago Board of Education.....	(312)/254-1919

The Master List

```

(ID:MTRS001,PW:UTOPIA)
Spence Schools (NY)..... (212)/369-5114no
  (USER:210,100,PW:DALLTON)
Stockton School..... (209)/994-4523
Oakland County School..... (313)/857-9500
  (I/D L BC700091,P/W STUBBIE)
Fort Worth School..... (817)/332-8491
Fairfax School System..... (202)/256-9676
Arbor Schools..... (313)/769-8821
Redford Schools..... (313)/494-1921
Grosse Point Schools..... (313)/343-2000
Grosse Pointe South Timeshare (recording)..... (313)/343-2350
  LOGIN: RS      FUNCTIONS:HP1  HP3
  LOGIN: HOST      HP2  MOIS
Grosse Pointe South Timeshare (recording)..... (313)/343-2340
Romulus..... (313)/941-3308
Macomb College Computer..... (313)/445-0260
Macomb College Computer Room..... (313)/445-7157
City of Harper Woods..... (313)/343-2500
Merit Computer Network.....(Wayne State Univ)..... (313)/577-0335
  
```

Through this network you may contact the following services and colleges for no charge..

MS=Michigan State Univ	OU=Oakland Univ
UB=Univ of Mich	UM=Univ of Mich
WM=Western Mich Univ	WU=Wayne State Univ

Autonet	ITI	Magnet	MSU IBM
MSUnet	MTU	OU Sec	RPI
Telenet	UM CAVAX	UM CLINFO	UM CVVAX
UM DSC	Um Engin Harris	UMLIB	UMLIB 300
WMU-CAE	WMU-Kanga	WMU-Pooh	WMU-Puff
WSU CSVAX	WSU ET	ZOOnet	ZOOnet-KCollege
ABA/NET	ADPNS 261	ADPNS 3	ADPNS 446
ADPNS 9	Alberta	Automail	Boeing
British Columbia	BRS	Cal Berkley	Calgary
Caltech HEP	Carnegie DEC-20	Carnegie MICOM	Carnegie 11/45
Compuserve	Comshare	Cornell	Dalhousie
DataPac info	Dialcom	Dialog Vers 1	Dialog Vers 2
Dow Jones	Guelph	Illinois	Illinois Cyber
LEXIS	Manitoba	Maryland UNIX	McGill
Minnesota Cyber	Minnesota VAX	MIT Multics	MIT VM
Montreal	Nat'l Lib Med	New Brunswick	Newsnet
NJIT EIES	NLM	Notre Dame	NRC
NY Times	CAG	Queens	Rice
SDC	SFU	Simon Fraser	Source
Source 11	Source 12	Source 13	Stanford
STN	Telenet Cust Ser	Telenet Mail	Telenet Telemail
Toronto	TUCC	UBC	UQV
Victoria	Washington	Waterloo TSS	Waterloo VM
Wilsonline	Wisconsin MACC	Winsconsin VAX	Yale

```

URI..... (401)/884-5970
Lasher High..... (313)/644-3840
  
```

The Master List

Navak Acad.....	(301)/268-8914
//Gov't and Military//	
Arms & Service Enlisted Mobil.....	(800)/325-4072
Combat Support Branch.....	(800)/325-4095
ROPD USAR Combat Arms Division.....	(800)/325-4890
Nat'l Defense Systems.....	(619)/225-1641
("@", "USERID11,60", "@", "PASSXXXXXXXXXXXX?")	
Martin Marietta Space Complex.....	(303)/977-3911
Langley Center/NASA.....	(804)/865-4052
("11C,1A,1Y,1V SWEIZAK")	
NASA.....	(309)/344-9156
	(713)/483-4115
	(806)/353-9901
Illinois State Defense.....	(415)/327-5220
Fort Manmoth.....	
(201)/544-2062, 2072, 2084, 2943, 2945, 2946	
U.S. Air Force.....	(904)/882-3242
	3442
Gunter AFS.....	(203)/748-3947
San Diego.....	(205)/279-3576
	(619)/225-1641
	6946
Andrews AFB.....	(619)/226-7884
	(301)/736-2990
	2998
The Pentagon.....	(202)/553-0229
	(202)/697-0814
	(202)/545-6706
Elgin AFB.....	
(904)/882-3242, 3248, 8202, 8201	
Robins AFB.....	
(912)/926-9725, 2726, 3231, 3232, 2204	
Camp H.M. Smith (Hawaii).....	(808)/488-6227
	(808)/477-6946, 6839, 6843
, 5844, 6839	
Abrden Proving Grounds.....	(301)/278-6916
Bethesda.....	(202)/227-3526
Patuxent River.....	(301)/863-4815, 4816
Hanscom AFB.....	(617)/861-5591
Offutt AFB.....	(402)/292-7050
Dover.....	
(201)/724-6731, 6732, 6733, 6734	
White Sands AFB.....	(505)/678-3701
Nat'l Defense Network.....	(703)/274-5300
(@N for access)	
FBI Net.....	
Pentagon Tactical.....	(412)/527-8291
KKK.....	(202)/697-0814
US Bureau of Standards.....	(619)/723-8996
Defense Dep't.....	(303)/499-7111
War Dep't.....	(703)/781-4531, 4522
	(401)/841-3436

The Master List

PAGE 8

NORAD..... (203)/748-3947
US Treasury..... (202)/623-7663
Denver Fed Center..... (303)/232-0206
Social Security..... (800)/432-3960
Puget Sound Naval Shipyard..... (800)/426-5996
Alcohol, Tobacco, & Firearms..... (800)/523-0677
TRW... (pw:sdm511500379x5n)..... (305)/371-6382
(408)/280-1901-
(602)/257-9054
(714)/776-4511
638-3492
956-3370
(805)/497-0940

//TelCo//

AT&T..... (214)/742-1195
AT&T Calling Card Operator..... (800)/855-4008
American Telephone..... (201)/221-6397
Bell, SouthWestern..... (214)/742-1354
1637
(405)/326-7838
Bell of Pennsylvania..... (215)/446-6680
Chesapeake Tele..... (202)/347-0999
Hawiiian Tele..... (808)/533-4426
General Tele..... (213)/829-0111
Greenville, NC Tele.....
(919)/355-2100, 2138, 2299, 2308
Illinois Bell..... (312)/530-1755
(312)/950-8600
(312)/432-9401
(312)/368-8000
(312)/782-1448
(312)/286-0282
Indiana Bell..... (317)/265-8611
Michigan Bell..... (313)/223-7233
New England Bell..... (207)/955-1111
New Jersey Bell..... (201)/483-3800
New York Telephone..... (212)/395-2200
Ohio Bell..... (216)/822-6980
Wisconsin Telephone..... (414)/678-3511
US Telephone..... (313)/950-1033
Unknown..... (800)/327-6713
Phone Company Test Line..... (619)/748-0002
Tracing Test..... (213)/935-1111
Telco..... (203)/776-2518
ITT DIALCOM Network..... (212)/947-7522
Ma Bell..... (313)/651-9743

//Mainframes//

American Express..... (800)/228-1111

The Master List

RSX 11.....	(213)/323-7270
HP2000.....	(800)/521-8426
HP3000.....	(615)/552-4466
	(303)/232-8555
	(415)/857-8193
	(215)/563-9213
	(512)/385-4170
	(301)/881-6156
COSMOS NY.....	(212)/370-4304
Develcon.....	(415)/486-4959
RCA/CMS.....	(609)/734-3131
NASUA..... ^{Dis.}	(713)/483-2700
DIALOG..... ^{FAX}	(212)/947-7522
GIS.....	(817)/625-6401
RSTS/E.....	(212)/369-5114
OVL111.....	(203)/527-0006
Rapid Data.....	(212)/736-3377
Millersville UNIVAC.....	(717)/872-0911
MIT.....	(617)/258-8313
Lyrics Timesharing.....	(516)/567-8013
Meradcom.....	(703)/781-4520
Engineering Com.....	(313)/964-2064
Menlo Park Corp.....	(415)/361-2500
DEC VAX.....	(414)/445-4050
DEC PDP-11/70.....	(414)/476-8010
DEC-10.....	(315)/423-1313
SEMAT Computer.....	(313)/964-2000
Bond-Net.....	(313)/962-1102
H.A.T.S.....	(714)/962-3365
ISO.....	(515)/294-9440
Intersystems #87.....	(405)/236-5512
Irmaline 1.95.....	(404)/232-7174
VAX 11/44.....	(619)/486-9888
VM370.....	(214)/742-3189
VAX/VMS 4.2.....	(615)/648-7757
WANG VS/80.....	(303)/978-2111
W.I.T.S.....	(313)/769-8803
Wylbur.....	(212)/246-7170
Wayne State.....	(313)/577-0260
UNIX.....	(609)/452-0025
	(415)/486-7020
	7015
	(405)/232-7609
	(405)/236-7050
	(214)/742-3999
Joskes.....	(213)/742-8000
LAUSD.....	(313)/234-5612
FTS.....	(213)/789-2000
	(202)/347-3222
FAA.....	(303)/447-2540
COCIS.....	(512)/474-5011
Austin Computers.....	(817)/977-0663
Autobahn Imports.....	(516)/567-8013
Lyrics Timeshare.....	(412)/794-7601
Slippery Rock Oil.....	

(with 6 lines)

Cheese Box

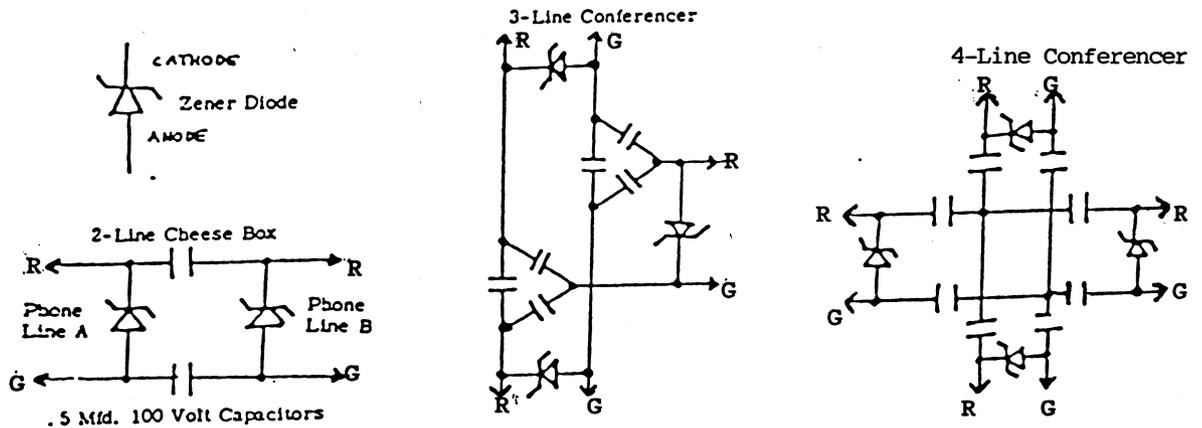
THE AMAZING CHEESE BOX!!

(C) Copyright 1988 Alternative Information & Edward D. Jones & Family
P.O. Box #4, Carthage, TX 75633

The CHEESE BOX is simply a conference line or loop-around. They are very popular with bookies who place bets by phone because their clients call one number, and the bookie calls another, and police won't find the bookie at the location of either of the two numbers!! This is precisely why loops have been a favorite of phone phreaks too! (See Alternative Information Publication "THE PHONE PHREAK'S GUIDE TO LOOPS!")

Bell's loops are limited because they often disconnect after a certain period of time, one of the two numbers must be called first, and they are often monitored and sometimes even charged! The CHEESE BOX can be extended to many lines, thereby creating conferences, and will let either line be called first and hang on indefinitely. Last, but certainly not least, THE CHEESE BOX IS FREE!

Phone voltage is normally 45 volts. When the phone rings a 90 volt AC signal is applied to the line. The zener diode conducts if the voltage rises to 56 volts, thus it conducts as the phone begins to ring, in fact, before the phone even rings! As soon as it conducts, the phone equipment thinks you picked up (because the current is drawn by the zener) and the voltage drops below the zener voltage, and it stops conducting. All this happens so quickly that essentially the zener conducts for only a few milliseconds, & the billing equipment does not start. If you call from a local pay phone, you will get your money back. And you can hold on until someone calls in on the other line or lines! When they do, their line will be answered in the same manner as yours was & then you can talk to each other! The capacitors prevent the DC voltages on the lines from interfering with each other. Either side of the line can affect the line status if allowed to touch another line. Install the zener diode to the red and green wires of your phone line. If you install it backwards, there will be no dial tone on your telephone, if so, reverse the diode. A zener diode will conduct when the anode is more positive than the cathode, or when the cathode is more than a certain number of volts more positive than the anode, in this case 56 volts. The schematics below are fairly self-explanatory.



Send \$1.00 to address above for our GIANT Consumer Survival Catalog containing over 80 Survival publications such as this! Topics include: STOPPING & REVERSING UTILITY METERS, PHONE PHREAKING, HACKING, DESCRAMBLING PAY-TV, PLUMBING EXPLOSIVES, UNUSUAL PUBLICATIONS, FORBIDDEN KNOWLEDGE, AND MORE!!! YOU WON'T SEE OUR PUBLICATIONS IN YOUR PUBLIC LIBRARY!! WE DARE TO BE DIFFERENT! (C) Copyright 1988 A.J.

GBPPR Non-Linear Junction Detector – Part 1

Overview

A Non-Linear Junction Detector (NLJD) is a counter-surveillance tool commonly used for detecting hidden transmitters or other electronic items. They work by transmitting a clean (no harmonics or audio modulation) 900 MHz RF signal at the target location and displaying the received signal strengths of the detected second (1800 MHz) and third (2700 MHz) harmonics. By comparing the received signal strengths of these two harmonics, the operator can distinguish if the target location contains a dissimilar metal non-linear junction, such as some rusty nails, or an actual P-N junction, such as a diode or transistor.

A "P-N junction" is the physical boundary area between the P-type and N-type semiconductor material used in the creation of our modern electrical components. By their nature, these boundary areas are "non-linear," meaning that when illuminated with a RF carrier they will generate successive harmonics of that initial illumination carrier signal. This harmonic generation is a function of the physical construction of the P-type and N-type boundary areas and doesn't even require the item to be powered on. In nature, a similar "P-N junction" is often created between two dissimilar metals at a catalyst. You've probably seen this in action as rust eating away on anything you've left outside for awhile. You can differentiate between a *true* semiconductor P-N junction and a "nature junction" by comparing the signal received signal strengths of the different harmonics generated. True semiconductor P-N junctions tend to generate strong *even* harmonics (2nd, 4th, 6th, etc.), while dissimilar metals tend to create strong *odd* harmonics (3rd, 5th, 7th, etc.). Also, a harmonic signal from a true semiconductor P-N junction will be "quiet" when audio demodulated. Since the illumination RF carrier is clean and unmodulated, those even-order harmonics will also be clean and unmodulated. Compare this to the odd-order harmonics from dissimilar metals, which will tend to be "noisy" or "scratchy" when audio demodulated. If you've located a suspect area with your NLJD and hear "crackling noises" as you lightly pound around the area with a rubber mallet – you can be pretty sure it's just a dissimilar metal junction.

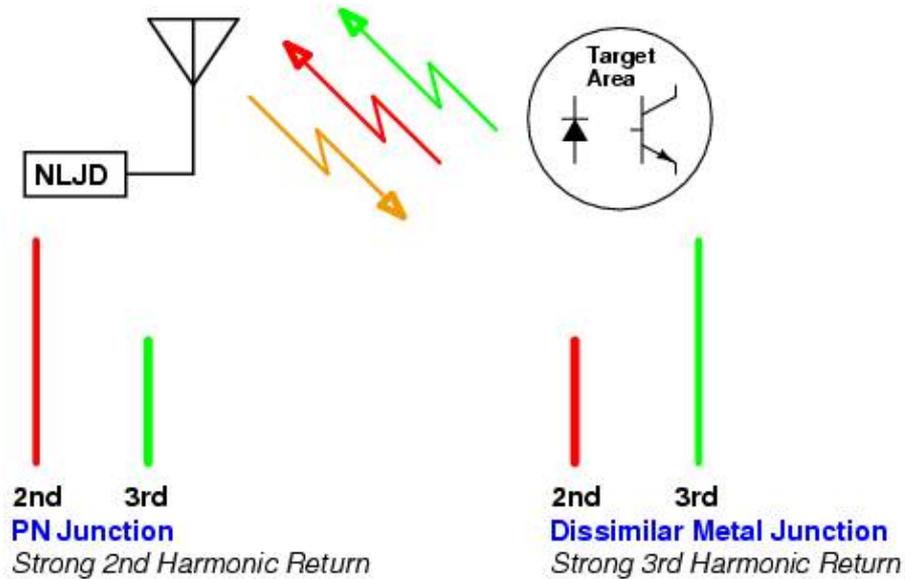
That's the idea at least, as I have no idea if the final project will work... The NLJD described here will be a bit clunky, but should be a good starting point for something more easily constructable and useable in the "real-world." The entire project will be built and documented as individual modules over a series of articles. This will allow for time to test and develop all the components for the project.

The main concept in a radio project of this type is *isolation*. You basically have a radio transmitter putting out around +30 dBm right next to a receiver trying to detect a harmonic which may be below -100 dBm. The use of well-shielded module boxes, double-shielded coax, and high-quality RF connectors is highly recommended. I prefer using old California Amplifier MMDS downconverter cases. These cases are very well constructed, provide threaded holes (3/8"-32) for standard RF connectors, and can be had at very low cost – if you can find them! Most of the other parts for this project were scrouged from other electronic devices and surplus radio equipment found at ham radio swapfests, so some of the components may be rare or hard to find.

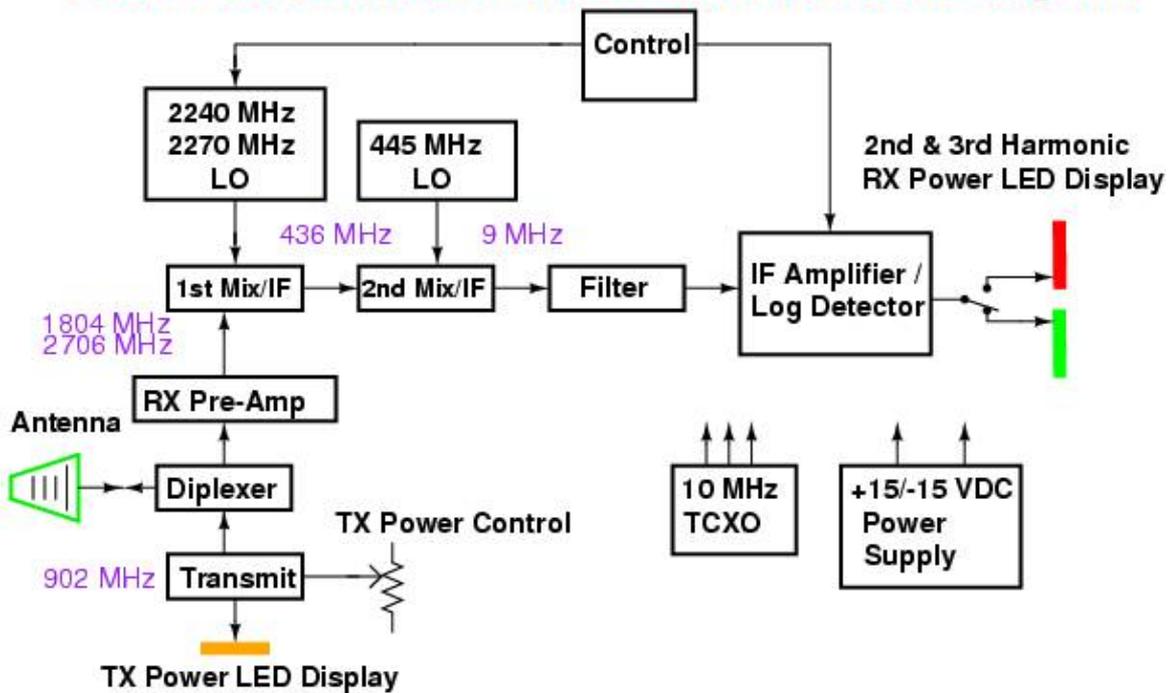
Feed-through capacitors should be used to route any non-RF signals in-or-out of the module boxes. This will prevent any excess leakage or RF interference. Voltage conditioning and regulation is not shown in the schematics, as it's all pretty standard. Try to use those new low-noise voltage regulators, though. Circuits with a PLL and VCO should each have their own dedicated voltage regulator to minimize interaction between them. Components in the pictures may vary from the schematics due to tweaking, but the schematics will have the correct values.

Block Diagrams

Non-Linear Junction Detector Operation



GBPPR Non-Linear Junction Detector Block Diagram



Pictures & Construction Notes



10 MHz Temperature Compensated Crystal Oscillator (TCXO) time base.

The 10 MHz TCXO is an EG&G Part Number 1DN14-CV90-2201-1 (Model Number T424), and is from an old Qualcomm OmniTRACS control unit.

Using an expensive TCXO like this is a bit of overkill, as just a regular 10 MHz crystal oscillator circuit will also work. Since both the transmitter and receiver frequency synthesizers will share the same time base, any frequency drift in the reference crystal should also track between those two circuits.

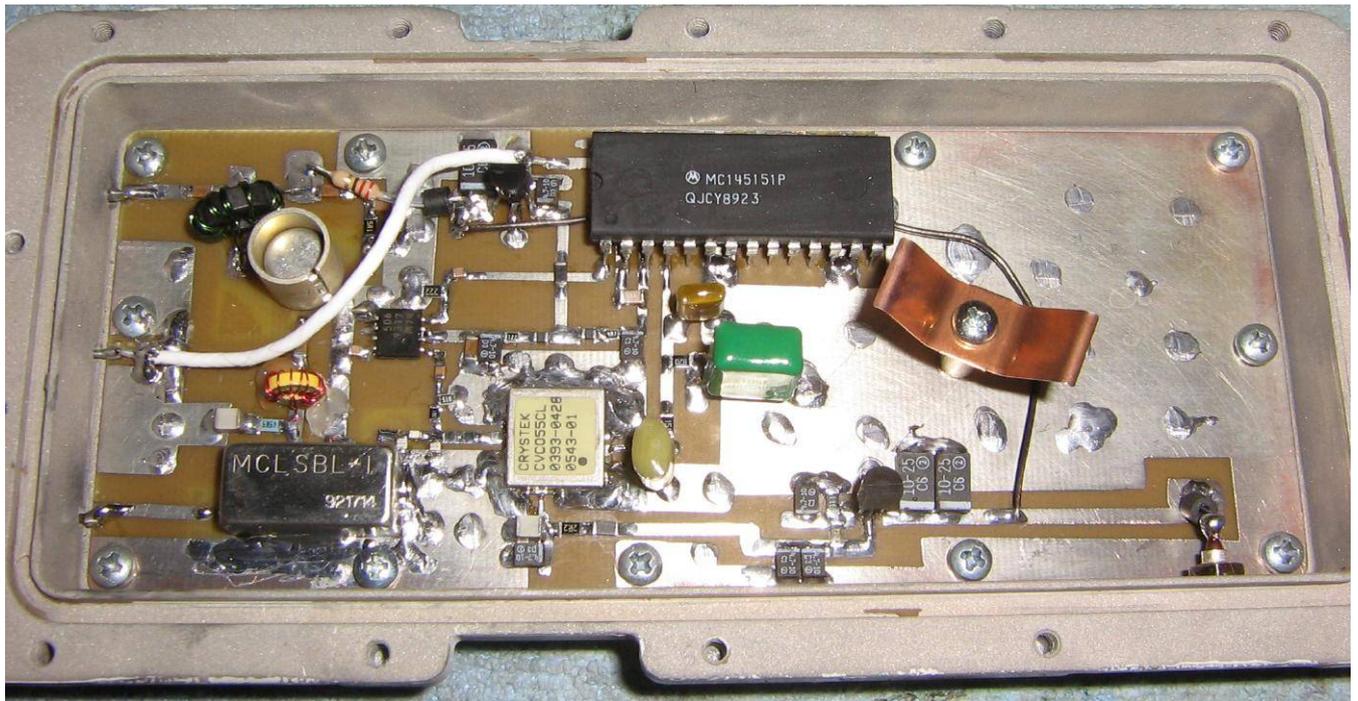
A simple 2N2222A transistor and 74AC00 buffer the 1 volt peak-to-peak output from the TCXO and convert it into a clean TTL-compatible square wave.

This may turn out to be a problem, as the harmonics generated by this time base extend all the way into the microwave spectrum. Without proper shielding, the time base could generate spurs on the frequency you wish to monitor – essentially jamming itself!

A filtered sine wave-based 10 MHz TCXO time base is currently under development. I'm also about 80% certain there is no need to even buffer the output from the TCXO, as most of the PLL synthesizer ICs have high-impedance reference frequency inputs.

The 10 MHz time base will have three reference outputs, provided via standard F jacks. One is for the transmitter, one is for the first local oscillator, and the other is for the second local oscillator.

Consider this time base design experimental, for now.



Overview of the second Local Oscillator (LO) and mixer.

This circuit converts the 436 MHz first Intermediate Frequency (IF) down to the 9 MHz second IF. It does this by mixing the incoming 436 MHz RF signal with a local oscillator frequency of 445 MHz. The mixing takes place in a Mini-Circuits SBL-1 mixer.

A high-dynamic range post-mixer 9 MHz IF amplifier helps to recover some of the power lost through the mixer. It also provides the first bit of final filtering via the low-pass diplexer circuit.

The yellow toroid is approximately 0.8 μH and consists of 15 turns of #30 enameled magnet wire on a T-25-6 powdered-iron core.

The other toroid forms a 4:1 matching transformer to convert the 200 ohm output impedance of the 2N5109 down to 50 ohms. It consists of ten bifilar (twisted together) turns of #28 enameled magnet wire on a FT-37-43 ferrite core. Each winding measured around 0.42 μH . Be sure to keep track of the phasing when winding the core.

Here's a list of spurs (under 1 GHz) generated by this circuit with a -30 dBm input at 436 MHz:

```

10 MHz intervals from reference clock into the high-UHF range, -50 dBm max.
9 MHz intervals from the IF output, falls off after 45 MHz.
881 MHz, -75 dBm (436 MHz RF input + 445 MHz LO)
890 MHz, -74 dBm (2 * 445 MHz LO)
899 MHz, -84 dBm (2 * 445 MHz LO + 9 MHz IF)
445 MHz, -70 dBm (LO leakage)
436 MHz, -92 dBm (RF input leakage)

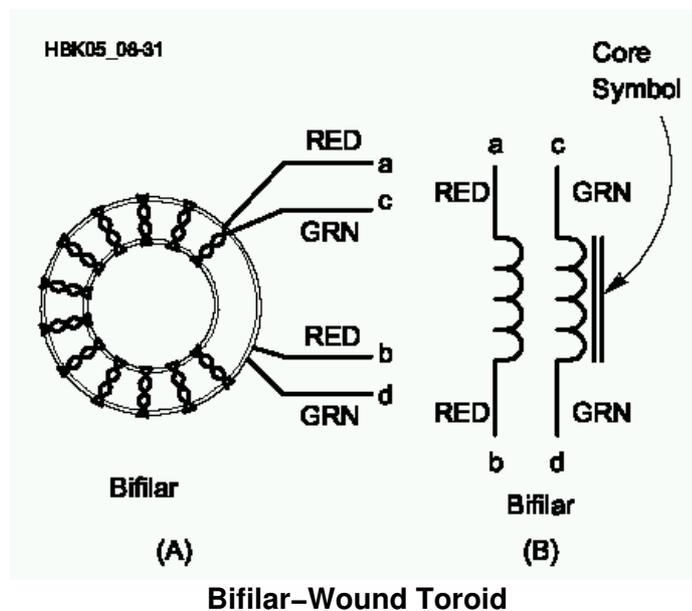
```



The PC board was made via a "psuedo double-sided" technique.

In order to reduce the height of the Mini-Circuits SBL-1 mixer and 2N5109 transistor, the PC board was drilled to pass the component's leads through. Then little extension pads where added to connect back up to the top side of the board via small connecting wires.

This also helps to give the final circuit additional isolation as any RF leakage is trapped underneath the circuit board.





The 445 MHz local oscillator is created by a PLL frequency synthesizer circuit using a Motorola MC145151 synthesizer IC and a Crystek CVCO55CL-0393-0428 Voltage Controlled Oscillator (VCO).

The Crystek CVCO55CL-0393-0428 isn't ideal for this circuit, as its stock RF output power is a little low (+3 dBm), but I had one available from another project and they are available from Mouser. We'll run the VCO at +6 VDC in order to help bump up the output RF power a few dBms.

The components which make up the PLL loop filter itself should be of high-quality and low-leakage to minimize the generation of microphonics or excess carrier sideband noise. Try to use 1% metal-film resistors and non-polarized polystyrene or other film capacitors.

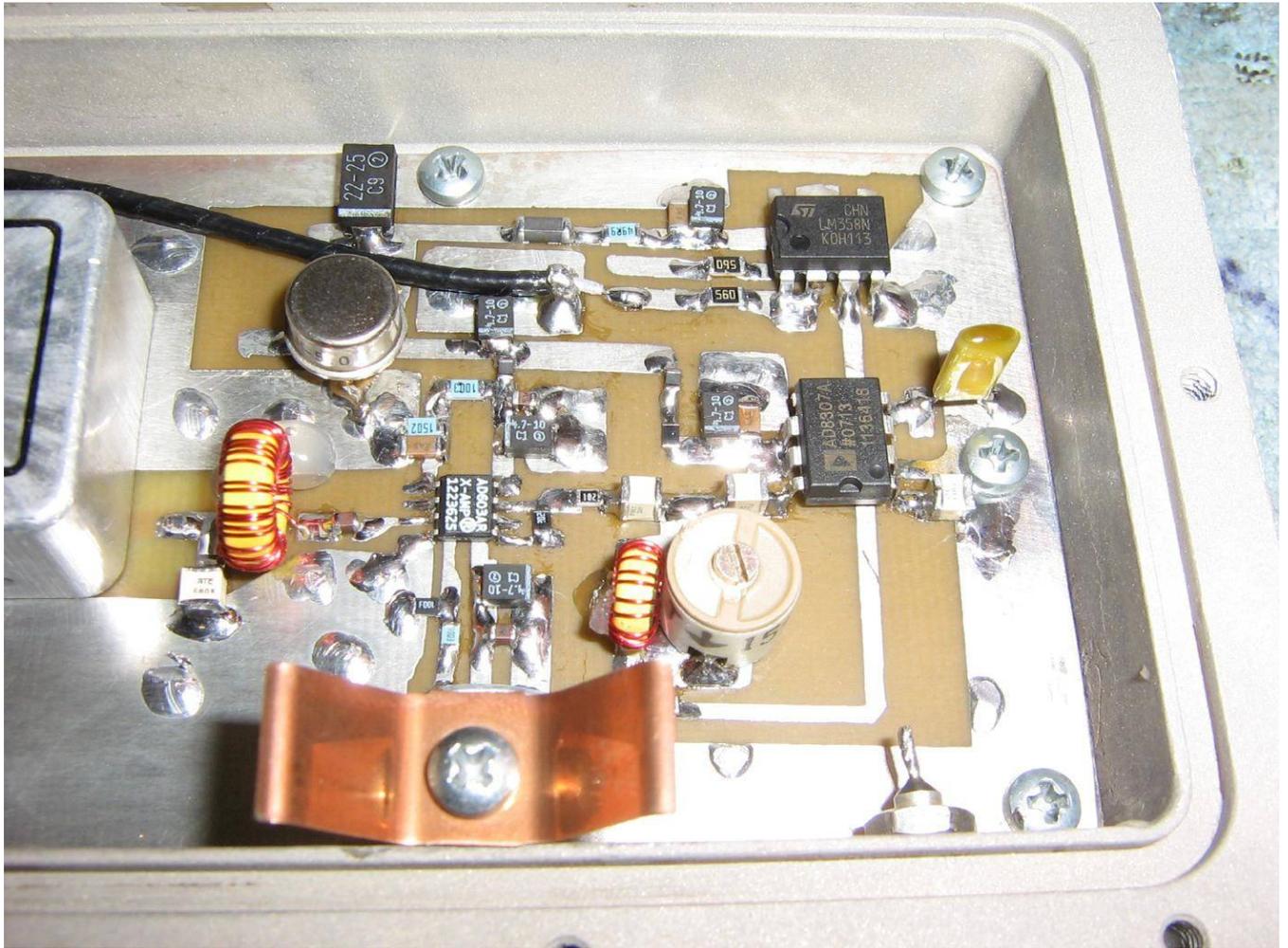
A 3 or 6 dB resistive attenuator pad should be added to the 9 MHz output of this circuit to help the mixer and 2N5109 "see" a 50 ohm impedance. This also helps to tame the high-impedance of the resolution filter down line.



Spectrum analyzer view of the 9 MHz second IF output with a -30 dBm 436 MHz RF input signal.

9 MHz center display with 100 kHz per horizontal division and 10 dB per vertical division.

No major spurs were found.

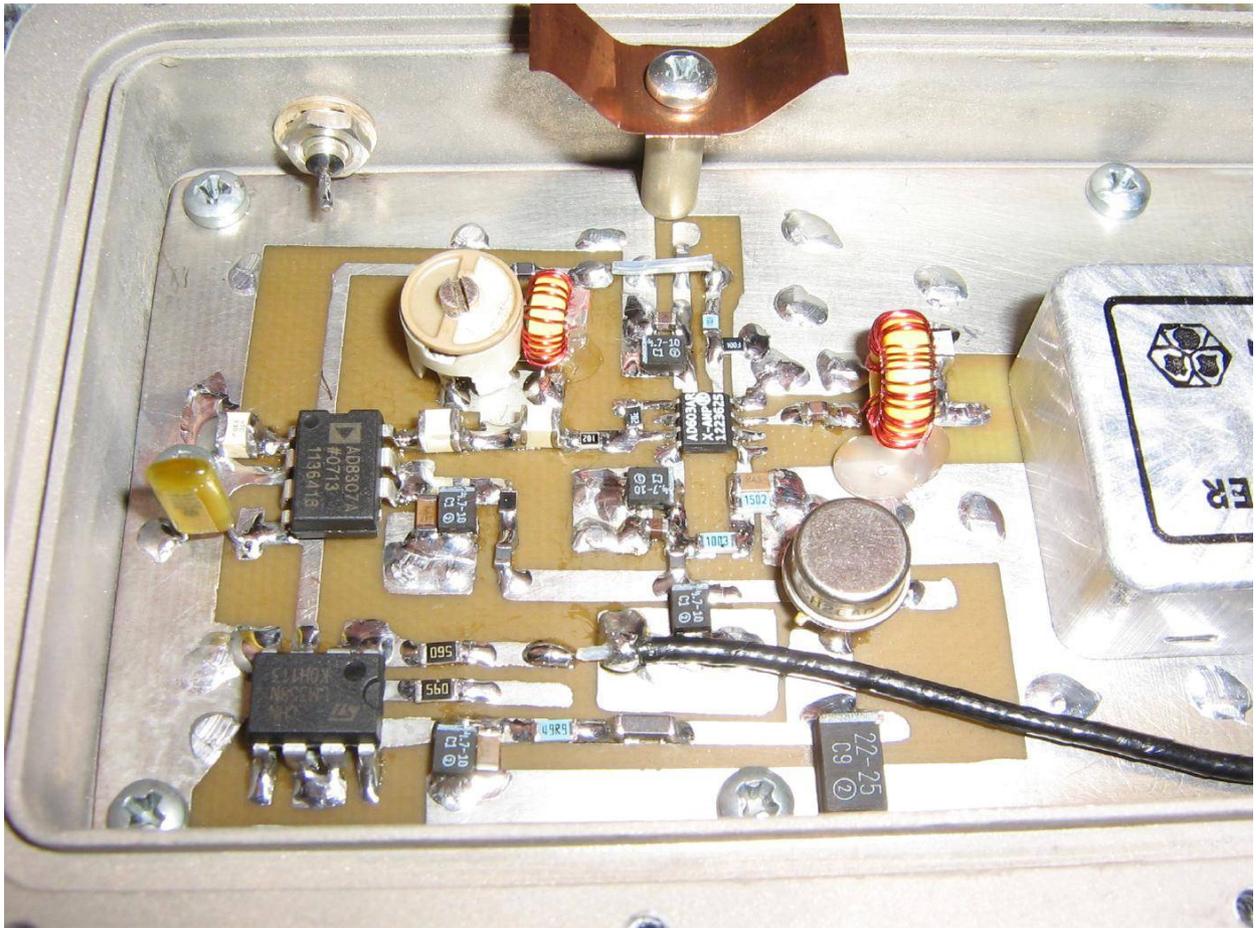


Closeup view of the Analog Devices AD603 and AD8307. The RSSI DC voltage output from the AD8307 is buffered by a LM358 op-amp.

A simple little L/C filter helps to knock down any excess spurs before entering the AD8307. Inject a low-level 9 MHz signal and tune for a "peak" to adjust this filter.

The output from the AD8307 controls the gain of the AD603. This keeps the entire circuit from being over-driven and provides a response from at least -100 dBm to over +10 dBm.

The Analog Devices AD603 does require a -5 VDC power supply, but with a minimal current draw.



Alternate view.

Try to keep the +5 VDC power line well-regulated and use 1% metal-film resistors in the voltage dividers.

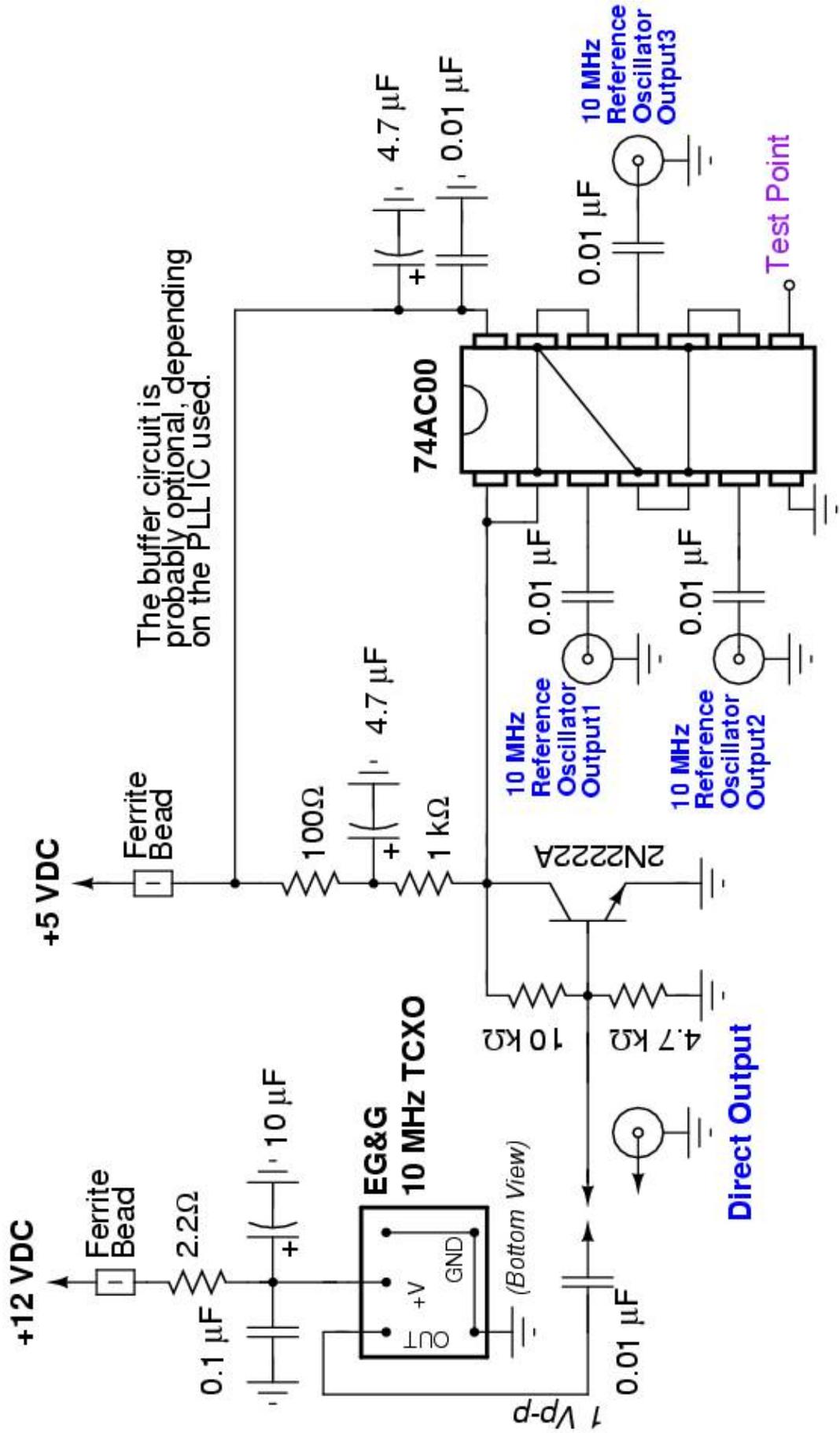
Here is a chart for various power levels (at 9 MHz) input to the final NLJD IF amplifier/log detector circuit:

<u>Input RF Level (dBm)</u>	<u>RX RSSI Output (Volts)</u>
No RF	0.43
-100	0.44
-90	0.46
-80	0.55
-70	0.70
-60	0.87
-50	1.02
-40	1.20
-30	1.35
-20	1.53
-10	1.72
0	1.86
+10	2.04

These values are subject to change as I fiddle with the overall design. The impedance matching to the KVG filter may need a little tweaking, which will effect the final value. The actual voltage level isn't important, just that it changes properly as the input RF power level also changes.

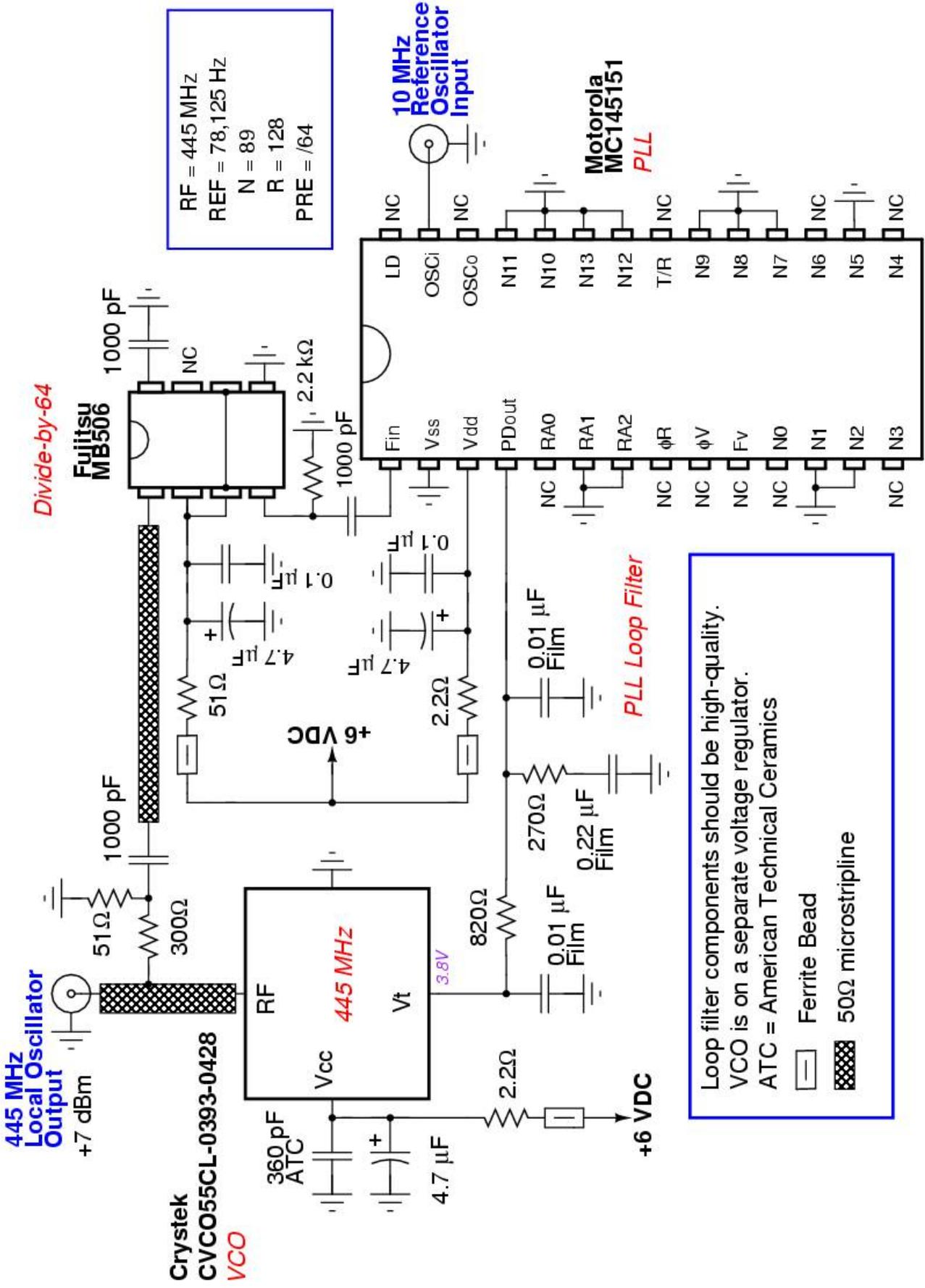
GBPPR Non-Linear Junction Detector

10 MHz TCXO Time Base - Square Wave



GBPPR Non-Linear Junction Detector

2nd Local Oscillator

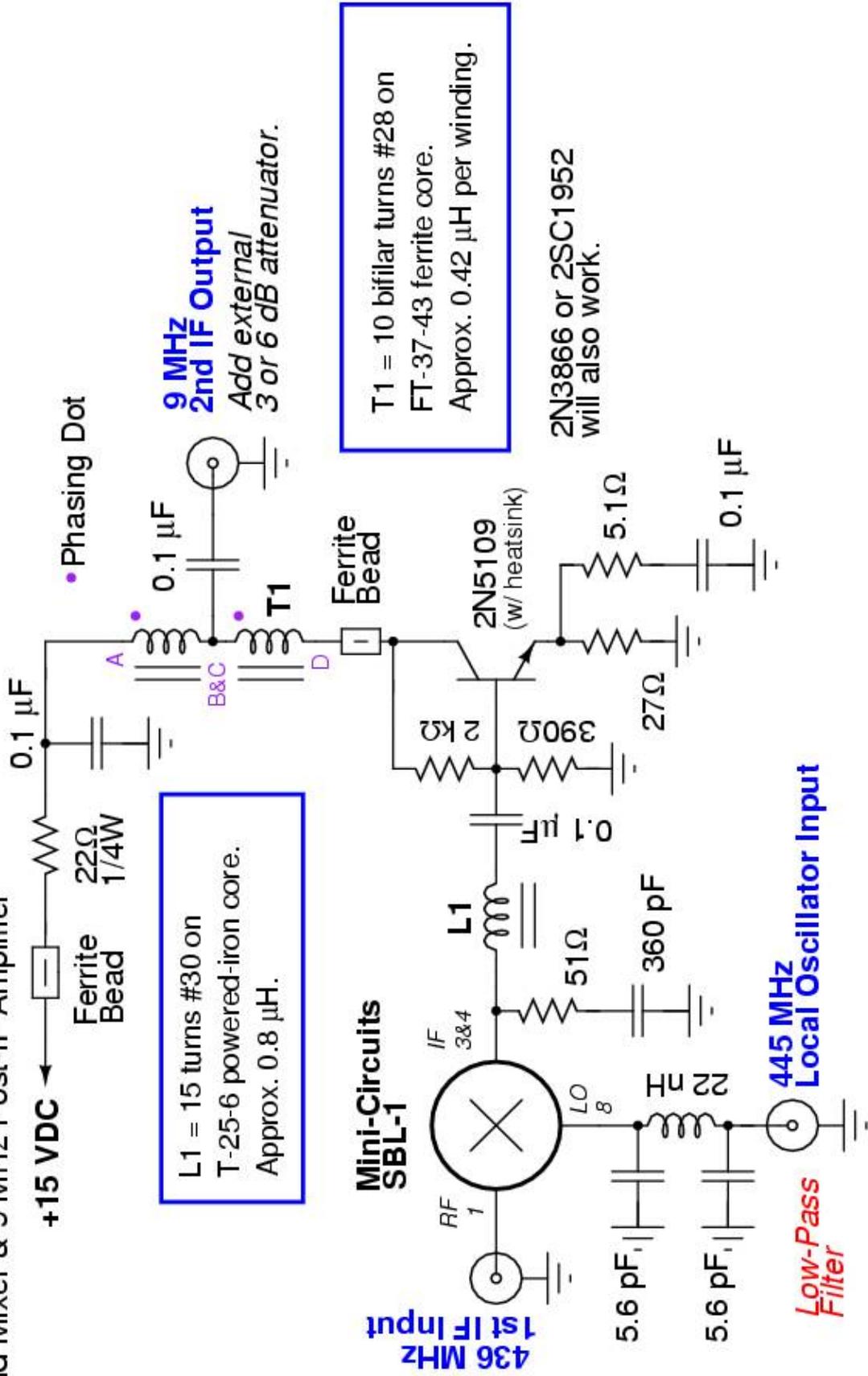


RF = 445 MHz
 REF = 78,125 Hz
 N = 89
 R = 128
 PRE = /64

Loop filter components should be high-quality.
 VCO is on a separate voltage regulator.
 ATC = American Technical Ceramics

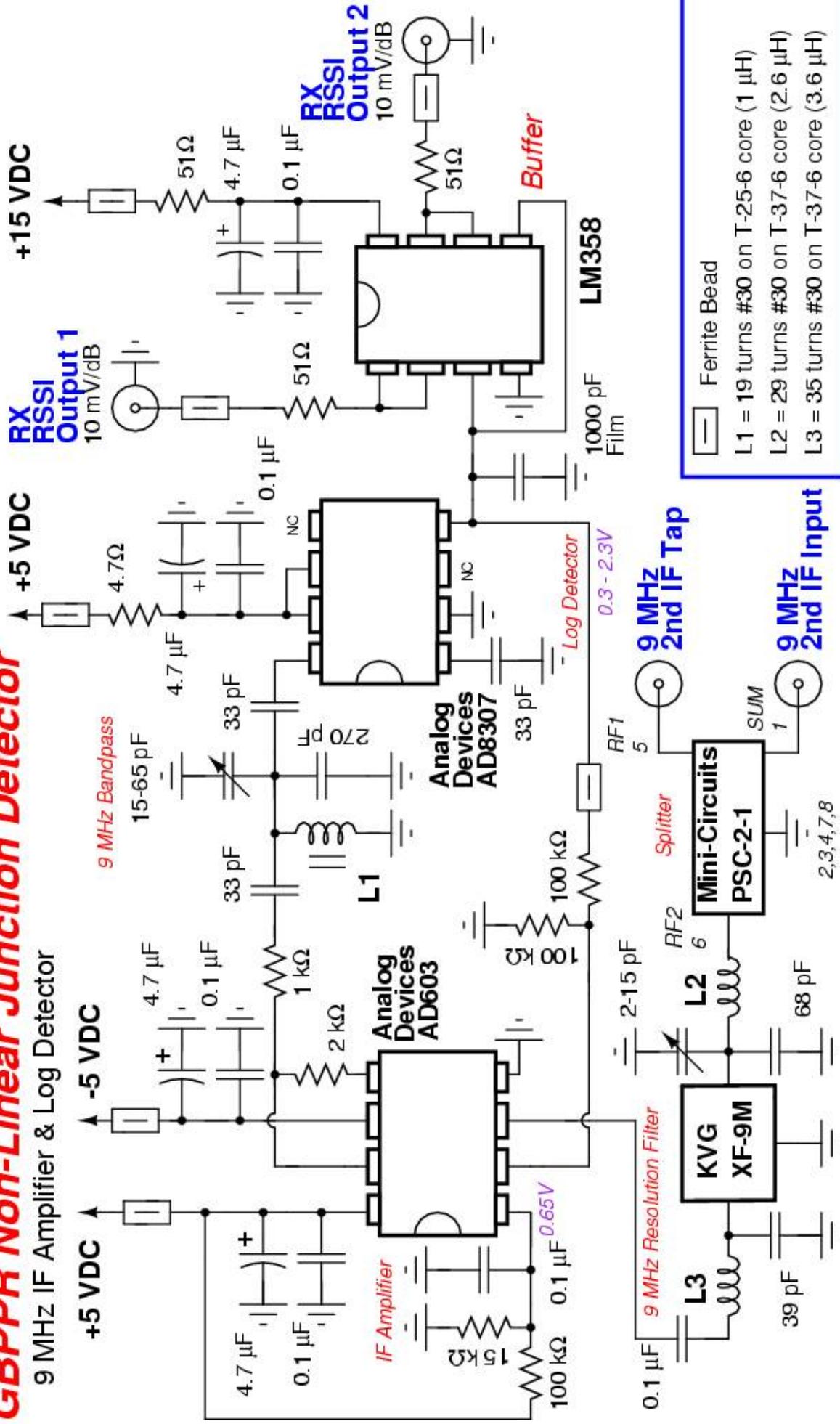
GBPPR Non-Linear Junction Detector

2nd Mixer & 9 MHz Post-IF Amplifier

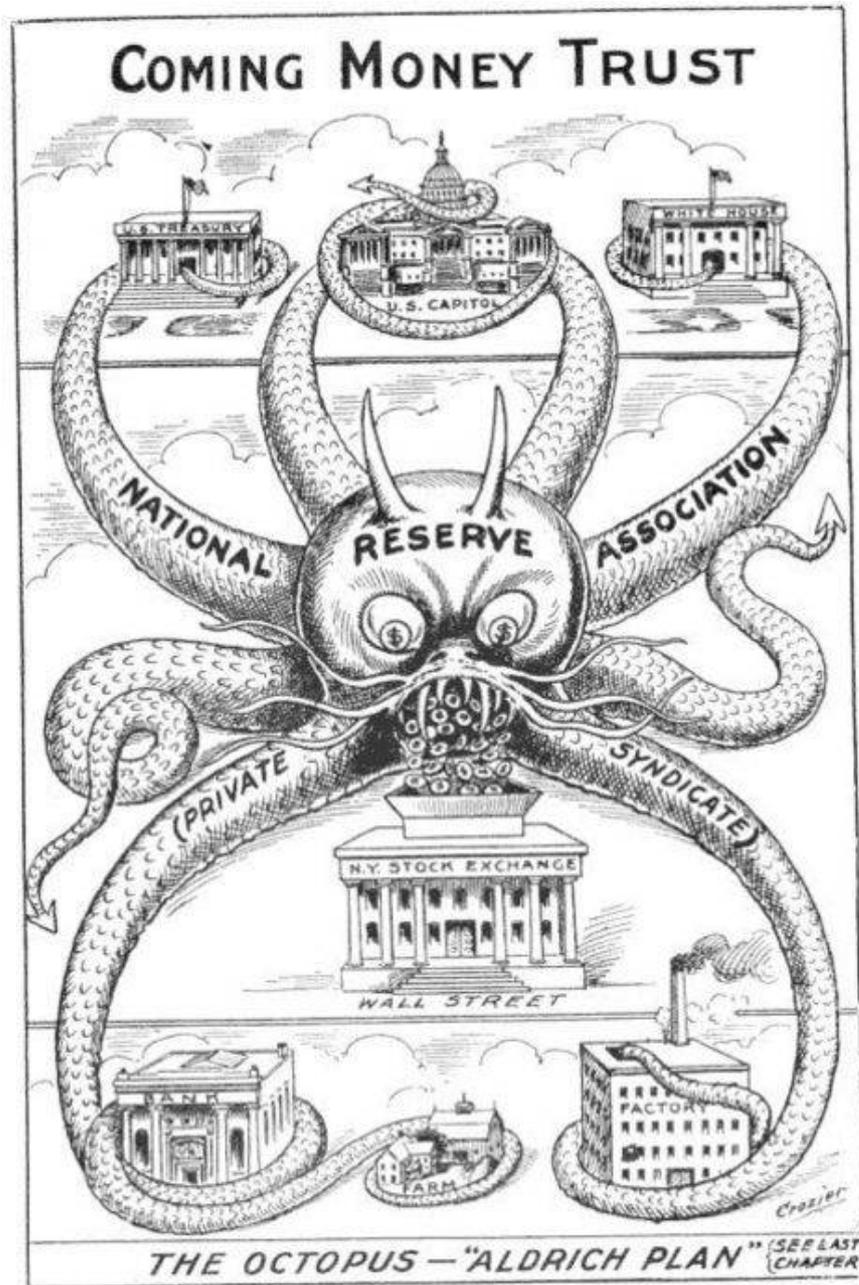


GBPPR Non-Linear Junction Detector

9 MHz IF Amplifier & Log Detector



Bonus



Cartoon from 1912, one year before the creation of the unconstitutional "Federal Reserve" central bank.

The Jew-run Federal Reserve creates money out of thin air, then loans it to the U.S. government (with interest) creating never-ending debt on the public and lowering the value of the dollar.

"The United States can pay any debt it has because we can always print money to do that." --- Alan Greenspan (Jew), former Federal Reserve Chairman.

"There are two ways to conquer and enslave a nation. One is by the sword. The other is by debt." --- John Adams, second President of the United States.

End of Issue #91



Any Questions?

Editorial and Rants

Many people have to pass a drug test in order to be employed and PAY taxes, but now you can't be drug-tested in order to RECEIVE the benefits from those same taxes! See the Jew...

Florida Welfare Drug-Testing Law Blocked by Judge

October 24, 2011 – From: [wsj.com](http://www.wsj.com)

ORLANDO, Fla.—A federal judge temporarily blocked Florida's new law that requires government-assistance applicants to pass a drug test before receiving the benefits on Monday, saying it may violate the Constitution's ban on unreasonable searches and seizures.

Judge Mary Scriven's ruling is in response to a lawsuit filed by the American Civil Liberties Union that claims the law is unconstitutional. The lawsuit was filed on behalf of a 35-year-old Navy veteran and single father who sought the benefits while finishing his college degree, but refused to take the test.

Nearly 1,600 applicants have refused to take the test since testing began in mid-July, but they aren't required to say why. Thirty-two applicants failed the test and more than 7,000 have passed, according to the Department of Children and Families. The majority of positives were for marijuana.

Supporters say applicants skipped the test because they knew they would have tested positive for drugs. Applicants must pay \$25 to \$35 for the test and are reimbursed by the state if they pass. It's unclear if the state has saved money. During his campaign, Gov. Rick Scott said the measure would save \$77 million, but it's unclear how he arrived at those figures.

Under the Temporary Assistance for Needy Families program, the state gives \$180 a month for one person or \$364 for a family of four.

Those who test positive for drugs are ineligible for the cash assistance for one year, though passing a drug course can cut that period in half. If they fail a second time, they are ineligible for three years.

The ACLU says Florida was the first to enact such a law since Michigan tried more than a decade ago. Michigan's random drug-testing program for welfare recipients lasted five weeks in 1999 before it was halted by a judge, kicking off a four-year legal battle that ended with an appeals court ruling it unconstitutional.

Illinois... What a shithole. I "hope" we don't ever elect anyone in charge there President!

Note that this story was also online at ABC News for a day or two, then was quickly deleted. Change! The original URL was:

abcnews.com/US/wireStory/deadbeat-state-ill-owes-billions-unpaid-bills-14744210

Deadbeat State: Illinois Owes Billions in Unpaid Bills

October 16, 2011 – From: dailyherald.com

by Christopher Wills

Drowning in deficits, Illinois has turned to a deliberate policy of not paying billions of dollars in bills for months at a time, creating a cycle of hardship and sacrifice for residents and businesses helping the state carry out some of the most important government tasks.

Once intended as a stopgap, the months-long delay in paying bills has now become a regular part of the state's budget management, forcing businesses and charity groups to borrow money, cut jobs and services and take on personal debt. Getting paid can be such a confusing process that it requires begging the state for money and sometimes has more to do with knowing the right people than being next in line.

As of early last month, the state owed on 166,000 unpaid bills worth a breathtaking \$5 billion, with nearly half of that amount more than a month overdue, according to an Associated Press analysis of state documents. Hundreds of bills date back to 2010 and the actual amount owed is likely higher because some bills are still in the pipeline.

While other states with budget problems have delayed paying their bills, the backlog in Illinois is unmatched, experts say. Year after year, Illinois builds its budget on the assumption that it will pay its bills months late — essentially borrowing money from businesses, schools and nonprofits that have little choice but to suffer the financial hardship.

The unpaid bills range from a few pennies to nearly \$25 million. In early September, for example, Illinois owed \$55,000 to a small-town farm supply business for gasoline, \$1,000 to a charity that provides used clothing to the poor, \$810,000 to a child-nutrition program.

Even death involves delays in Illinois. Funeral homes were waiting for \$2.8 million in overdue reimbursement for burying indigent people.

Leigh Ann Stephens wrote a letter in August "asking, pleading" for \$50,000 the state owed to the DuPage Center for Independent Living, where she is executive director. It was the third time in two years that she had sent a hardship letter warning the center, which helps people with disabilities live outside of costly nursing homes, would close if it wasn't paid.

The letter got results, for now, but it hasn't reversed cuts. Stephens has laid off one of eight employees, stopped opening on Fridays, cut back hours for part-time workers and reduced salaries 7.5 percent for herself and the other full-time worker. Like their clients, most of the employees are disabled, coping with blindness, loss of hearing, cerebral palsy and more.

"This is not just a job for me. It's a way of life," Stephens said. "I can be angry. I can be sad. I can be so mad that I cry. I have thrown things across the room."

The delays have prompted relatively little public outcry, perhaps because so much attention has been focused on other budget battles or there is no one politician or agency to blame. It also reflects resignation from some vendors who no longer expect the corruption-plagued Illinois government to function properly.

"We've become accustomed to it. Being angry is not going to change it," said Suzanne Young, who has had a hard time getting the state to pay her business, Rockford Map Publishers.

Illinois leaders join in bemoaning the crisis but haven't been able to find a solution.

"God, how much more can our people take?" said Comptroller Judy Baar Topinka, a veteran politician responsible for trying to pay a seemingly infinite stack of bills with the finite amount of money approved by legislators and the governor.

"I really feel terrible every day that we can't pay these bills and people are going to be hanging out there for six months, seven months," Topinka said.

Delaying payments during tough times is nothing new for Illinois, though past delays were shorter and more limited. Under former Gov. Rod Blagojevich, big spending collided with a recession that sent state revenue spiraling downward. Illinois could no longer afford to pay its bills and the backlog exploded.

The backlog continued to grow even after Blagojevich was impeached and later convicted on corruption charges that included trying to sell or trade President Barack Obama's former U.S. Senate seat. He is awaiting sentencing.

Blagojevich's replacement, Democrat Pat Quinn, raised income taxes and trimmed spending, but that money was gobbled up by other needs, primarily rising pension costs. Under budget agreements with legislative leaders, all Democrats, bills continued to go unpaid.

As recently as June 2008, Illinois paid its bills seven days after state agencies finished the paperwork. A year later the delay had reached 99 days. It stood at 118 days in June of this year, the comptroller's office said.

The General Assembly has accepted the unpaid bills as an unpleasant necessity while Illinois claws its way out of deficits that once topped \$13 billion. Lawmakers of both parties rejected Quinn's proposal to borrow money so the state can pay its overdue bills, although he says he'll try again when lawmakers meet later this month.

Instead, Illinois has turned businesses, schools, charities and local governments into unwilling short-term lenders, using their money to operate government and disguise the depth of the state's financial problems.

Who gets paid sometimes depends on who complains the loudest or can get a politician to step in.

Illinois grants "expedited payment" to vendors who say they're on the verge of shutting down if they don't get their money, but the process lacks clear rules. The Illinois governor and comptroller each say the other makes the final decision on payments, and documents show a letter of support from a legislator — Republican or Democrat — can often shake loose money for vendors.

Many states use the budget gimmick of delaying payments when money is tight, but Illinois is seen as the worst.

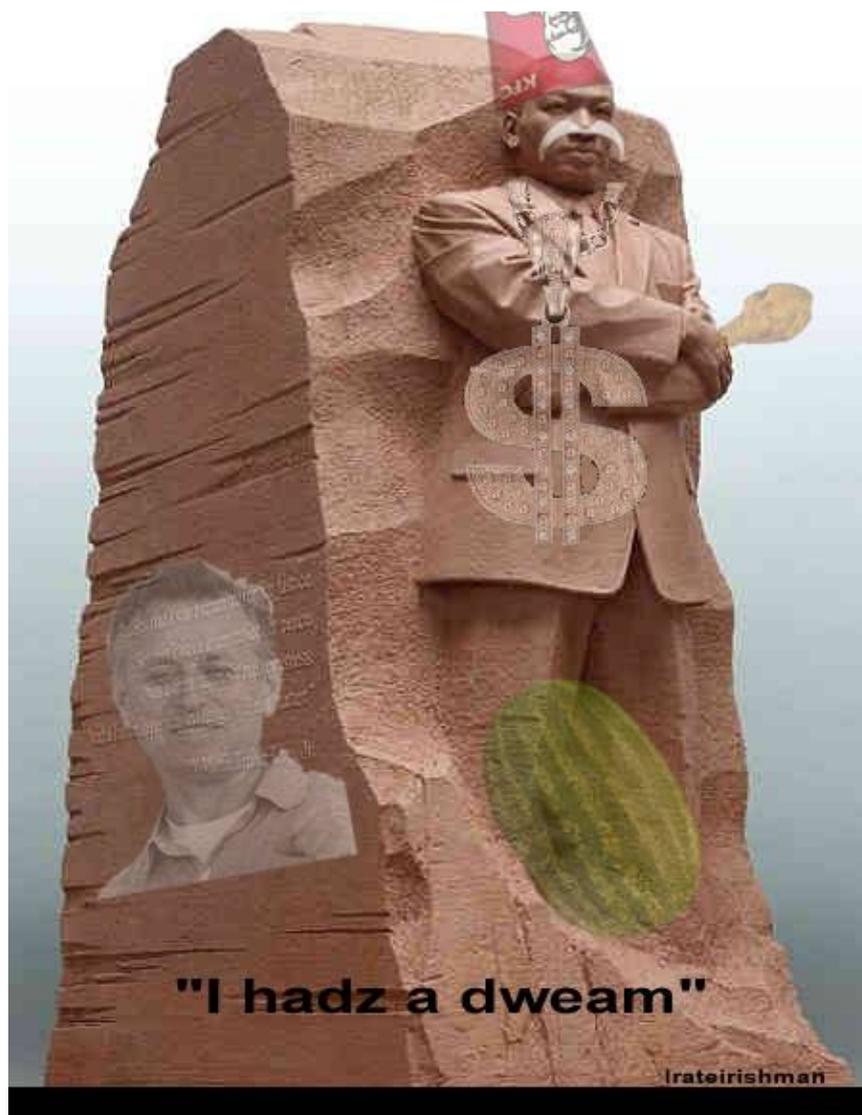
"I think you win the championship," agreed Elizabeth Boris, an expert on nonprofit groups at the Urban Institute think tank.

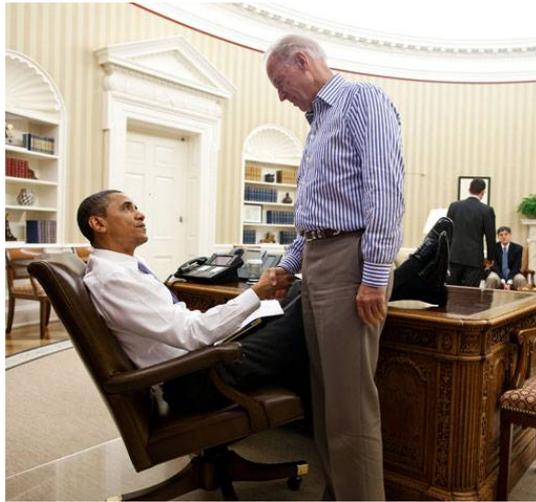
California, another state notorious for budget troubles, had to issue IOUs to vendors at one point. But that was a temporary problem, not the way of life it has become in Illinois. California groups and businesses could get by with short-term loans.

But many Illinois groups have maxed out their lines of credit and still don't know when state money will start flowing smoothly again or how much to count on as they plan their financial year.

Illinois ranked No. 1 in the country in the percentage of nonprofit groups facing payment delays, an Urban Institute survey found. Eighty-three percent said late payments from state and local government were a problem in Illinois, compared to a nationwide average of 53 percent. That survey was conducted in 2009, when Illinois' backlog was still in the middle of its dramatic rise.

"We are basically bankrolling the state. It's a ridiculous situation," said Abha Pandya, CEO of Asian Human Services, a Chicago organization awaiting payment on \$609,000 in bills, some of them stretching back to November of last year. "It's just absolutely awful and there seems to be no end in sight."





The White House isn't a mud hut in Kenya!

There are members of al-Qa'ida with more respect for our Founding Fathers than this teleprompter-reading idiot.

The "cultural Marxists" strike again! Imagine if they stopped celebrating Muslim or Jewish holidays. The Jews at the ACLU would be going ape–shit! But when they ban the White man's holidays – silence. Note that European explorers are the true indigenous people of North America. Save a student – don't send them to public school!

Fun Takes a Holiday in Somerville, Massachusetts

October 14, 2011 – From: bostonherald.com

by Jessica Heslam

A Somerville principal has opened fire on cherished American holidays, blasting legendary explorer Christopher Columbus for atrocities and saying we need to be careful about celebrating Thanksgiving in a scathing email to teachers who are already under orders not to let the kids dress up for Halloween. "When we were young we might have been able to claim ignorance of the atrocities that Christopher Columbus committed against the indigenous peoples," wrote Kennedy School Principal Anne Foley. "We can no longer do so. For many of us and our students celebrating this particular person is an insult and a slight to the people he annihilated. On the same lines, we need to be careful around the Thanksgiving Day time as well."

Mayor Joseph Curtatone said, She raises a fair point. History is messy. School Superintendent Tony Pierantozzi said her intention is to be very, very sensitive to all of the many, many cultures of Somerville. Foley said she just wanted to open up a conversation. "When I grew up, I was taught from a very European perspective of history and it was both embarrassing and enlightening to me when I learned other perspectives," Foley said. "I want our children and families to know that we are aware of those other perspectives." When pressed on the atrocities of Columbus and misdeeds of the Pilgrims, Foley said she wasn't going to dwell on that.

"I have friends who are Native American. I have friends from the islands in the Caribbean. I've heard their perspective on different things that we say and do their versions of history," said Foley. But some historians say the K–8 educator needs to do her homework. Carol Delaney, author of *Columbus and the Quest for Jerusalem*, said the Italian explorer has been terribly maligned.

"He was not the one going off marauding," she said. There were some atrocities that happened but he was generally not involved. Charles C. Mann, author of *1491* about the interactions between Indians and Europeans, said Thanksgiving is sort–of a made–up holiday but it's his favorite, bringing families together in gratitude.

"I don't see why it's such a terrible thing," Mann said.

U.S. Rep. Michael Capuano (D–Somerville) said historical figures shouldn't be judged by today's standards: Christopher Columbus and the Pilgrims may have had shortcomings, but they also represent the adventurous, inquisitive side of our heritage and we should recognize that they played key roles in the foundation of our great nation.

Of the Somerville schools ban on Halloween costumes, Pierantozzi said, "For some students families, Halloween is problematic." He cited its connections to witchcraft, adding, "Some of our students come from cultures where kids are frightened by it." But Somerville mom Michele Campbell called the holiday hoo–haa joke: Let the kids enjoy them.

The "cultural Marxists" strike again! Imagine if they stopped students from wearing a Mexican flag. The Jews at the ACLU would be going ape–shit! But when they ban the White man's flag – silence. Why are we even celebrating spic holidays in our public schools? The judge was [James Ware](#), chief judge of the U.S. District Court for the Northern District of California. And yes, he's a nigger... You can bet there was a little bit of 'racial profiling' in his decision against those White students...

Morgan Hill Students Lose Lawsuit Over Right To Wear Flag

November 11, 2011 – From: [sanfrancisco.cbslocal.com](#)

by Jessica Heslam

MORGAN HILL (CBS SF) – The families several high school students who sued the Morgan Hill Unified School District for violating their free speech rights have lost their case.

On Cinco De Mayo, 2010, students at Live Oak High School were told to remove shirts, hats and other clothing bearing the American flag for fear that the articles would incite violence on campus.

The former principal told the boys to turn the shirts inside–out or go home. When the refused, the were asked to leave campus.

Parents claim that the demand violated the students' first and fourteenth amendment rights.

A federal court ruled that Live Oak has the right to restrict a student's free speech when it is likely to cause a substantial disruption.

The plaintiffs were John and Dianna Dariano, parents of Matt Dariano; Kurt and Julie Ann Fagerstrom, parents of Dominic Maciell; and Kendall and Joy Jones on behalf of Daniel Galli. The group was seeking damages including changing school policies to clearly state studentsâ rights, and reimbursement lawyer fees.



These guys would have let you worn a U.S. flag in class.