

MARCH 1974

NO. 26

YOU CAN HELP TAP

If you can contribute any information that you think other readers would be interested in, please do so. TAP readers are the main source of our information. You can help by meeting employees of phone and power companies, alarm places, etc., and asking them about questions other people raise in the newsletter. Be sure to get details and maintain contact in case you have additional questions. Most employees of those companies would be glad to screw their boss and they'd probably be interested in TAP, too. We hope that a lot of you will gather information so we know what the scene is around the country and Canada.

We also need info on the following:

Automatic Blue Boxes-With info about where they're necessary.

Vending Machines-Locks, getting stuff, etc.

Locks- New code books, picking Medeco, Sargent Keso, tricks, etc.

Radio- Setting up your own Station, Schematics, legal stuff, jammers, etc.

Burglar Alarms-Holmes and other central station alarms, bypassing, electronic keys and picking, etc.

Also, Magnets, Overseas Phreaking, and Chemistry.

Pay Phones- How they work, operator's consoles and procedures, bypassing, using boxes on, coin relay info, etc. We need a digital genius to develop a 74161 programmable divider circuit that needs work. Can someone do it?

Are you interested in building projects in TAP but afraid that you don't have the know-how? If so, you should know that our Electronics Correspondence courses are designed to give you a fast introduction to electricity and to get you started building projects. We're trying to put out 6 courses that will allow beginners to build any project in TAP by the time they're done reading them and doing the experiments. Four courses are ready now and they're 50¢ each (free if you can't afford it). The newest one is Amplifiers, Course D. Also A, Basic Electricity, B, Alternating Current, and C-Basic Phone Operation.

Dear TAP,

Union Oil Co. is reportedly salting away gasoline in its dead service stations. Next time you find such an ostensibly folded station, it wouldn't hurt to see if the storage tanks are really empty (Union may not be alone in the use of the tactic); if there's gas there, feel free to indulge in the "spirit of '76".

-CALIFORNIA-

Dear TAP,

I have heard a rumor that operators in Boston have been giving only minor hassles to C.C. callers, the usual ploy

being a question as to whether the caller is using the 1974 number or last years. This has proven to scare off only the most nervous of customers.

-MASSACHUSETTS-

The Benevolent Association of Relentless Exhibitionists association with the American Streaking Society, better known as B.A.R.E. A.S.S., announced in Daytona Beach, Florida that the world's first streaking championship will take place on the world's most famous beach during the Easter Holidays. Champion streakers from all over the U.S.A. are expected to compete as well as a large contingent of foreign competitors. For further information write General Delivery, Peninsula Station, Daytona Beach, Fla. 32018. . . BIT in London publishes the best guide around to going to or through any country-\$6.00 airmail and it's called Overland through Africa. Has methods and tips for getting through cheaply. They also publish stuff that you should see if you're heading to Europe. Write BIT, 146 Great Western Rd., London W11(tel. 012298219 alias KP04412298219 ST). Send Int'l Money orders only, no checks please. . . N. J. Bell is replacing glass phone booths with Kayrex, a rigid vinyl, as part of their Coin Patrol program(Quack!). Doors are being removed from booths and they'll convert all the phones to single-slotters by 1976. Finally, they're installing curved pieces of sheet metal at the appropriate level inside the booths so that liquids directed at the sides of the booth are deflected to the customer's feet. . . Paranoid? Aren't we all! RESIST, 763 Massachusetts Ave. #4, Cambridge, Mass. 02139 publishes a Movement Security Kit which tells what to do to keep your cool with police, agents and grand juries and even has some true stories about a few sicko agent-types who give radicals a bad name. Send a stamped, self-addressed 8x11 envelope and \$1 to them. . . This month TAP salutes Detroit, Michigan, home of the unemployed big car workers and the pollution-causing companies that had the foresight to build 10 mile-per-gallon cars for the last decade. General Motors (556 4651 083S) helped make this country what it is today. And with April 15 coming up, the IRS (226 7220083X) and (226 7340 083Z) and (226 7727 083Q) is looking forward to spending your dollars in freedom-loving enterprises around the world. Detroit is area code 313.

Dear TAP,

There is a type of sandwich machine, with 13 tiers of 10 compartments, which cycle past a column of sliding doors in chain fashion at the push of a button. Cycle the sandwich you want to the door for that tier, pay your money, and take your chances. If, instead of sliding the door to the right, one slides it up against the track, pries the bottom of the door slightly outward via the crack at the bottom, & then pulls the door down and slightly outward, enough space is left at the top to squeeze a sandwich past (or maybe more than one); no deposit, no return. Don't do this; some gluttonous fool may observe your technique, empty the machine and inflict a serious case of indigestion upon themselves. It is considered lacking in style to cave in the front panel of this (or any vendor) with a hammer, or to remove it with a glass cutter (or chemicals, in the case of plastic panels).

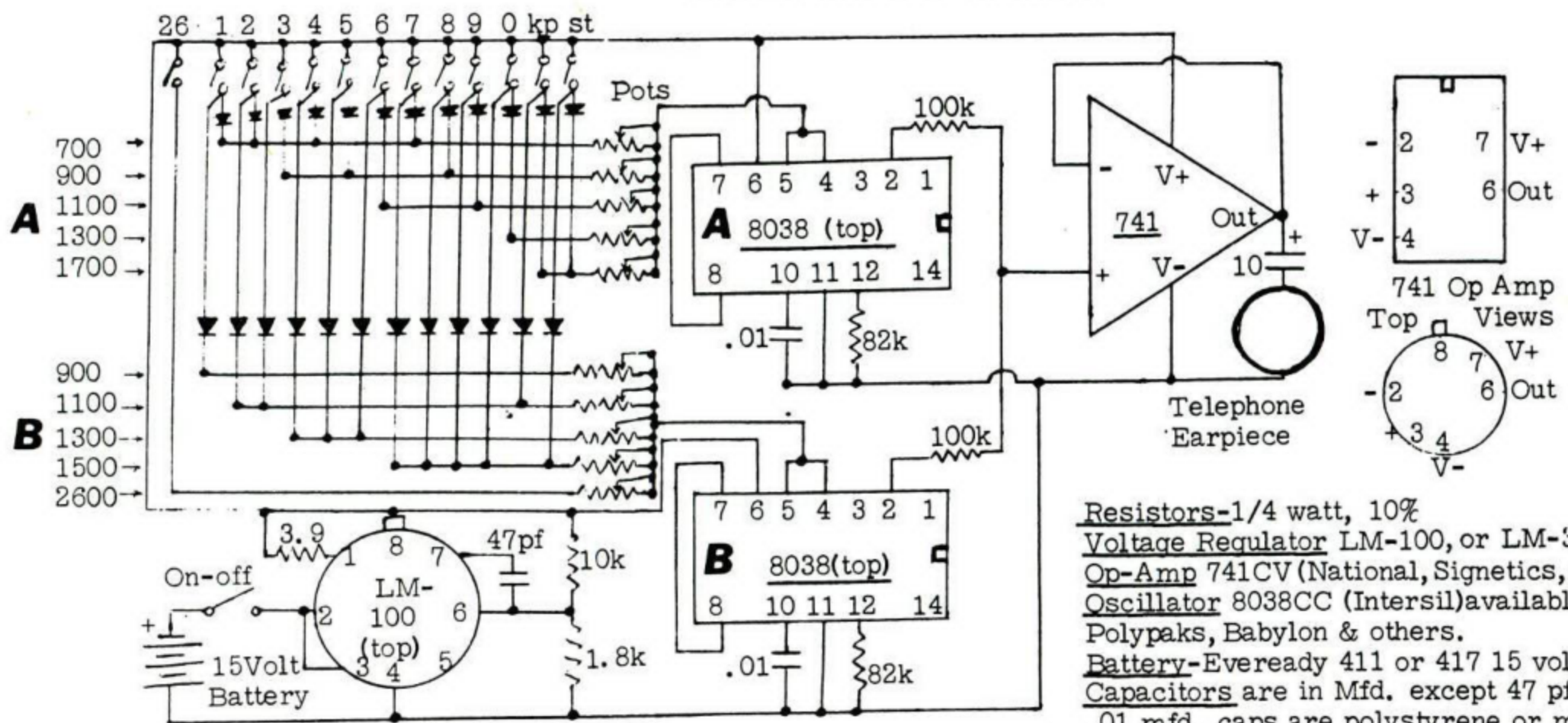
When the man comes to refill the vending machines, and leaves his keys in the lock with his back turned, do not take the key ring away; this will get him in trouble.

-CALIFORNIA-

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Movement groups may reprint with TAP's address, and please send us copy of reprinted work.

NEW BLUE BOX!



For more info see Issues 7, 12, 13 and 14 (Tuning and Using Box)

The new Intersil 8038CC Function Generator forms the basis of the Multifrequency generator. By varying an external resistor we change the frequency of the 8038. Unlike the phase-shift oscillators in Issue 12, however, the distortion remains at a low 1%, and the circuit requires only two oscillators instead of 7. The diodes route +10 volts to different pots for the different tones. As in Issue 12 a diode matrix can be built with two pieces of perf-board forming a diode sandwich, but the new circuit requires 12 lines on one side and 9 on the other. 2600 is a single tone and needs no diode.

The pots are small 20 turn (or 10 turn) trimmers. They can be obtained surplus for under \$1 each. If you use single turn pots your resolution will be too small to precisely calibrate the box, and a small vibration may upset the tuning. Single-turn pots can only be used if a series resistor makes up most of the needed resistance and the pot trims in the difference, but that requires 10 more resistors and time spent determining their value.

The 8038 Box draws 20 ma., so keep the switch off when possible. The smallest 15 volt batteries will work but not for too long. A regulated supply is needed, and the LM-100 or 300 works fine. The hookup shown supplies 10 volts to the circuit. The on-off switch should not be replaced with diodes in this box for maximum stability.

Tuning is super-easy because the 8038's plug into IC sockets (don't build it without sockets!) and by inserting 1 8038, you can calibrate single tones easily. To tune 700, for example, plug in Oscillator A only and press button # 1 (or 2, 4, or 7) and tune the 700 pot to 700 using a counter, or an accurate signal generator by "beating" method. 900 is tuned while pressing 3, 5, or 8. When you're done with all 5 tones on one oscillator, switch the oscillator to the B socket and tune the other 5 pots. Then install both 8038's and let your fingers do the walking!

LAB NOTES

We didn't think we'd need the regulator at first but the frequency doesn't hold with supply changes as well as it's supposed to. Also, 10 volts is the minimum operating voltage and so is the lowest current drain. Since the battery wears down, it's nice to have a time margin before the supply voltage drops. Germanium diodes are used to minimize differences in voltage drop. Only diodes that feed the same pot need be matched to each other.

The 82k resistor is supposed to be 81k for minimum dis-

tortion but it's unnecessary here. Acoustic coupling induces more than 10% distortion alone. The best coupling is realized with a telephone earpiece. To use an 8 ohm speaker you need a 500-8 ohm transformer which isn't worth it in our opinion. Earpieces can be dissected if you're size con-

scious.

We're especially proud of the amplifier circuitry, or to be more accurate, the lack of it. Since the 8038's sine wave output is referenced to $V+/2$, we use the outputs to bias the op amp to 5 volts, so the 100k mixing resistors end up killing two birds with one stone. And unity gain yields 3 less parts and a beautiful +2dBm at the phone set terminals with tight acoustic coupling to the mouthpiece. That's the same level (for a single tone) as a Touch-Tone phone signal! Felicitas est canis parvus calidus, Bell Labs!

Thanks to all of you who helped us by sending in your ideas for this box.

**If you want
to cut your phone bills,
cut out this chart.**

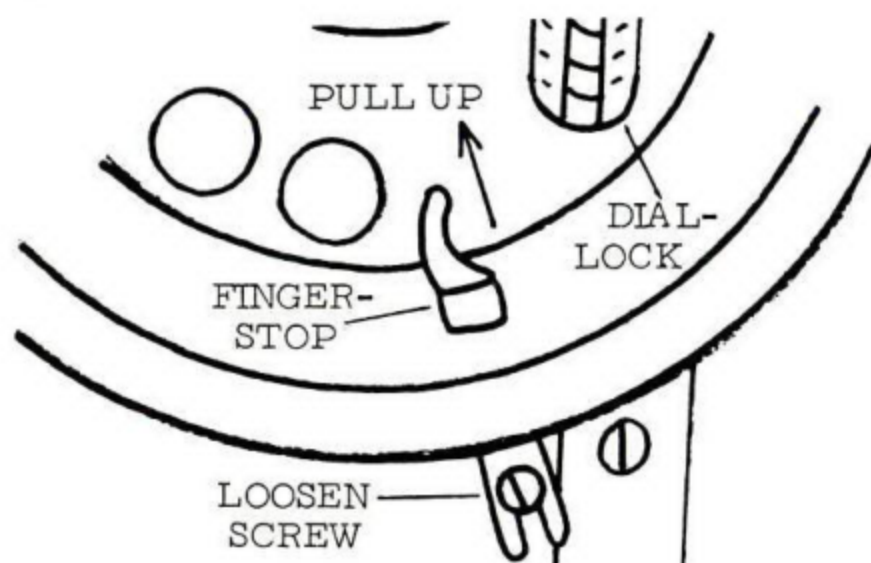
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 Send **CASH**, check, or money order to :

TAP, Room 603, 147 West 42nd Street, New York, N.Y. 10036.

Dear TAP,
When down and out, without any boxes or ripoff aids at a payphone & you must pay on a L. D. call, if you drop only about 2/3 of the money in super quickly, the operators don't listen anyway & will often let you off on that much.
-KANSAS-

Dear TAP,
Con Ed issues two "FINAL" notices of service suspension. The blue one is the first. Ignore the shutoff date. The red notice is the real one. When the blue one arrives, phreaks have been known to write to Con Ed, claiming that they'll be moving into the apartment & wish to have Con Ed service turned on in their name. A deposit is likely to be extorted. However, service is to be billed to a phoney person. The blue shutoff notice is voided as Con Ed switches service to the new resident. Except for the deposit, the phreak refuses to pay any more. So, a blue notice eventually comes. The phreak then uses a new name & has service "started" for the new resident. Except for the deposit, no more money is paid. When the blue notice arrives, a new resident moves in....

Telephone dial locks have been circumvented by 1) Unscrewing the two screws on the bottom of the phone and removing the case, 2) Loosening the screw that holds the finger-stop (see diagram below) and 3) Dialing numbers by stopping at the point where the finger-stop used to be before you removed it. This is easier than tapping out the number on the switchhook (And less obvious than just bending the finger-stop out of the way with a pliers).



Blue Boxing: 800 and long-distance information present some dangers when boxing since these are recorded or supervised. Are you overlooking the obvious? That is, dialing a nearby area code which is a toll line (eg. in N. Y. calls to 914, 201 and 516 from 212 do not count as toll calls and can't be 2600'd. Parts of 203 (Conn.) can be offed. Get a phone book to find out the nearest beepable exchange. Thus, although giving PA BELL some cash, it is completely foolproof, since we're only billed to the nearby toll number and not the final destination. (This method still has dangers if used from a home phone. Using it from a pay phone is much safer, and with a red box, cheaper!)

Sunday N. Y. Times "Travel & Resorts" section has pages of ads for Florida hotels with 800 numbers- in case you need them (And WATS information is 800-555-1212).

Chemistry- Would-be amateur underground chemists should exercise extreme caution in ordering chemicals & reagents, which although legal to possess, bring down Fed. or local investigations. Example-A friend ordered ordered a chemical described in an underground manual as the last step in synthesizing mescaline. He had it sent to a valid & official laboratory address, but had no explanation for why he ordered it. Always have an excuse or non-traceable address. He was busted for "synthesizing a controlled drug".

-NEW YORK-

Dear TAP,
Having worked a few years in the coin machine industry I think I can give much valuable information on certain types of vending machines. The easiest type of machine to hit is the pinball game. The front door of those machines can be easily popped open and the cash box removed. Surprisingly quite often enough it is unnecessary to pop it open. Any straight-looking dude can buy keys from Wurlitzer. These keys will open the majority of machines in the N. Y. area. To purchase these keys it is necessary to ask by number. The following keys are for games: 1093, 1150, 1155, 1350, 2255, 1234. These keys will open almost all pool table drawers which will enable you to play for free. Pool tables quite often have an alarm on them which consists of a bell battery and a switch so observe carefully when you open them. Pool table cash boxes are usually master locks and are a job to break open. Juke boxes also use a master lock to lock up cash but contain records which can be easily removed. The proper keys for jukeboxes can be obtained on 10th Ave. The majority of coin machine companies are between 40 and 44 st. The only other is Wurlitzer at 1161 Rogers Ave. Juke Box keys are broken down by Corp. #'s: Wurlitzer: RW 95, RW 100, RW105, RW 110. Seeburg: 264, 278, 314, 336, 340, 291, 293, 205. AMI: C70A, C256, RI303. Rock-Ola: 486, 592, 593.

Juke Boxes are never alarmed and in the newer ones the amplifier and other digital parts are well worth it. The only other machine worth breaking into are the TV games. Steal both the TV and the circuit board. Any friend who knows TV will be able to restore the TV to operating condition and the circuit board has dozens of useful ICs (7400). Try the following keys in the back doors: 8013 and 8114 from Wurlitzer plus the game keys listed above. Cigarette machines have individual keys and are often alarmed. Try a Rowe 87 Key (Ace) available from Simon on 10th Ave. That's about all I can tell you.

-NEW YORK-

Dear TAP,
I've been using this method for acquiring IDs; you've probably heard of it, but what the hell. Most university libraries have local papers on microfilm. Pick the year you want to say you were born and find a child who died shortly after birth; usually the approximate age at death is given. Go back to the birth notices and find the child's date of birth & parents name. Birth certificates and death certificates aren't cross-referenced (at least where I've done this), and the records office will give you a copy for a few bucks. Then you get genuine driver's license, etc. If you haven't been fingerprinted it's undetectable.

The advantage of using such a young child is that they have no records, prints, etc. The advantages of using a deceased person are obvious.

Not all papers bother with obituaries for such young people. Sometimes fires, traffic accidents, etc. provide the info. If not, you can just work off birth notices. This way, though, you could wind up assuming the ID of someone with a warrant out on them (You could probably get the info. off of tombstones, also). One thing I've been wondering about is getting a passport with one of these IDs. I hear that if you go to one of the main offices & pay an extra fee, your passport will be processed while you wait. Do you know, or your readers know, how thorough a check is made? I'm wondering if they make an extra check for a death certificate. If not, Jesus....

-RHODE ISLAND-

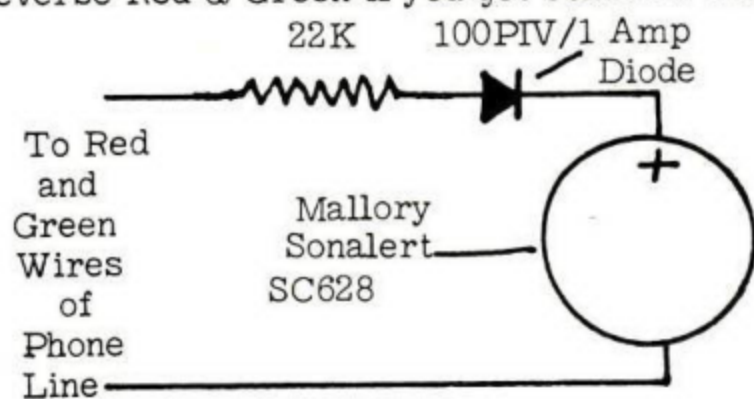
Dear TAP,
Free Envelopes! The Banks in Penn and Grand Central Stations in NY and in many other cities (like Boston) have free envelopes for depositors who use a Bank Charge card. Inserting the credit card-sized Bank card into a slot in a panel pops out an envelope. The latches are purely mechanical and any credit card will yield an envelope. These machines are found wherever banks have remotely located deposit booths, preferably unmanned.

-H. GORDON LIDDY-

Pacific Telephone and New England Telephone are starting programs to track down extra extensions installed by customers. The programs are expected to run several years and they'll eat up a lot of money for the sole purpose of making people pay outrageous charges for Bell-owned extension phones. They check the number of ringers that are connected as we've said before, by measuring the capacitance in series with the ringer. We were told that the voltage used to check is 100 but we'd like to know for sure. A line relay using a sensitive relay and a .5 Mfd. capacitor (Issue 17) can drive multiple bells or other signalling devices if you need extra bells. Or a Mallory Sonalert can be hooked up to provide non-detectable signalling. Or the capacitor in the phone can be hooked up in series with 2 bells instead of one, thus giving the same capacitance. If the phone company tells you they've detected a freebie, say you'll disconnect it. You can put it on later after removing bell. Not appearing cooperative will lead to a visit from Security, so be nice and dumb.

Here's a neat way to double the number of bells in your home undetectably. Simply replace the .5 or .4 Mfd. capacitor in your only ringing phone with a .2 Mfd. 200 volt capacitor in each of two phones. The bells won't be quite as loud as the old one was but they'll be loud enough for most purposes. In Western Electric phones, remove the wires that go to the A and K screws and attach one to each end of the .2 capacitor, wrap up tightly with tape, and you're done. In Automatic Electric phones, the big gray capacitor is sitting next to the bell. Remove the two wires from it and wrap them tightly around the new capacitor, seal the whole mess with tape and close up the phone. Doing this to each of two phones makes the phone co. think you still have one .4 or .5 Mfd. capacitor because the two .2's add up to .4.

Reverse Red & Green if you get constant tone.

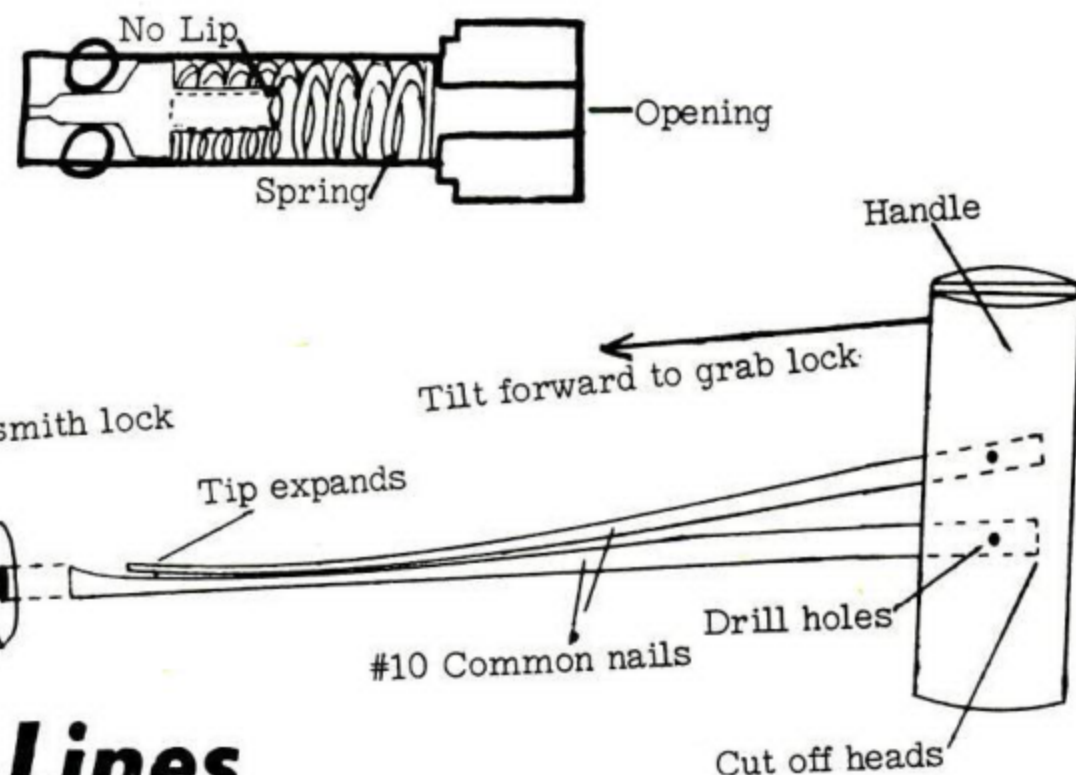


MAKE A KEY FOR YOUR ROLLERSMITH LOCK

One of our master craftspersons just built this beautiful rollersmith key and it works like a dream. Unlike the nail method in TAP 23, this key allows you to put the lock back on! (As well as take it off, of course). You'll need an electric grinding wheel and two 5/32" diameter nails that are at least 3" long. Since the hole on the lock is exactly made for a 5/32" rod, grind the nails down so that they'll slip into the hole when the top nail is slid back, but not when it's slid forward, as shown in the diagram. Bend the backs of the nails so that there's a 1/8" space between them yet they lie flat against each other along their length. It's easy to see that when you tilt the handle forward the tip of the key expands and grabs the moving cylinder in the lock. Now pull the key outwards while keeping the top of the handle tilted forward, and voila! off it comes.

Drill the holes in the nails for the pivot screw and mount it in-between two pieces of wood for a handle. You can put a rubber band around them so they don't flop around when not in use.

We smashed open a lock to find that it's built a little differently than we pictured in Issue 23. The spring is in the middle and there's no lip for a nail to grab.



Blast Damages Phone Lines

By ADRIANNE THOMAS
Denver Post Staff Writer

An explosion under the west end of the W Colfax Avenue viaduct Monday night severed three main telephone cables and caused minor damage to homes, businesses and cars in the area, police reported.

Detectives Fred Stevenson and Robert Weyand of the police bomb squad said the blast, at 8:50 p.m., was caused by a "high explosive—either plastic or dynamite."

Stevenson said the U.S. Treasury Department's Bureau of Alcohol, Tobacco and Firearms was assisting local police in the investigation.

Debris collected at the scene will be examined in the federal agency's laboratories.

Heaviest damage was to five Mountain Bell telephone cables that enter an underground conduit at the site of the blast.

Jim Kercheville, Colorado public relations manager for Mountain Bell, said three of the lines were severed or torn up and the other two were "nicked."

The explosive apparently was placed directly on the telephone cables, Kercheville said. He said he has no idea on possible motives.

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TAP, Room 603, 147 W. 42 St., NY 10036

RENEW IF YOUR ADDRESS HAS A 17 OR LESS NEXT TO IT.