



Exploding The Phone

db591

www.explodingthephone.com

Bibliographic Cover Sheet

Title	Ma Bell's Tolls
Publication	<i>The Real Paper</i>
Date	1972-10-11
Author(s)	Cahn, Gary
Abstract	Letter to editor regarding article on blue, black, and red boxes. "Do you ... think that it is possible to 'rip off' the phone company? Come on, you can't be serious."
Notes	Letter to the editor that refers back to an article printed on 11 October 1972.

The following pages may contain copyrighted material. We believe that our use of this material for non-commercial educational and research purposes constitutes "fair use" under Section 107 of U.S. Copyright Law. If you wish to use this material for purposes that go beyond "fair use," you must obtain permission from the copyright owner, if any. While it will make us slightly sad to do so, we will nonetheless comply with requests from copyright owners who want their material removed from our web site.

Liberating Pay Phones: The Red Box

By Chuck Fager

A young man walked into our office last week with a red box under his arm. It wasn't, as most of these devices aren't, either red or a box, but he demonstrated it for me and it does what red boxes are supposed to do: take the place of coins at a pay telephone.

What he had was a brown shopping bag in which was a small cassette tape recorder, and a tape on which was recorded the sound that recent pay phones make when quarters are dropped into them. "It was very easy to make," he said. "All I did was have a friend call me from a nearby pay phone, and drop quarters in while I held the mike up to the receiver. You don't hear the tone when you make a call from a pay phone, but the operator and anybody else on the other end can. Once you have a tape, they're easy to reproduce." We walked around the corner to an anonymous-looking phone booth. He picked it up and dialed a number in Cincinnati. He held the receiver so I could hear the operator come on. "Deposit two dollars and sixty-five cents please, for the first three minutes," she said. He pulled a small speaker from the shopping bag, held it up to the mouthpiece, and with his other hand punched the PLAY button on the recorder. A funny-sounding buzz came out (to be precise, a 2.2 KC pulse of 35 milliseconds repeated five times with 35 ms. intervals) which repeated itself eleven times. "Thank you," said the operator, and after another couple of clicks, the phone on the other end rang.

We walked back to the office. He stopped at the door. "Gotta split," he said, with a grin, and walked away. I never did get his name.

There are also real red boxes circulating underground, which contain an oscillator which can emit the tones for quarters (described above) as well as dimes (which consist of two pulses, 60 milliseconds each, with a 60 ms. interval) and nickels (a single 60 ms. pulse). But there are people outside the phone company security department who don't even want this much information distributed. One of them was the person who called me the next day. He claimed to be a member of the "super phone phreak" circle around MIT. This caller was very

uptight about our last article on the subject of their avocation. "You shouldn't have printed the frequencies, man," he said, "because too many people will try to build them from it and get caught because their waves aren't shaped right and they'll tip off the new detection system."

I pointed out that the article had also discussed this new detection system and its potential implications (not to mention the legalities involved) but he was not impressed. In fact, he didn't like the idea of printing anything at all about phone phreaks. "The more publicity there is, the more the company will be trying to get us." My friend Alexander had a different point of view, I replied; he thought that the more the people knew about how Ma Bell worked the better off we all would be and the harder it would be for Bell security. "Yeah?" he said. "So who is this Alexander? None of my friends know him, and they're the super phone phreaks around here." Before I could answer, he hung up.

This was just another indication that the phone phreak underground is not a unified or politically homogeneous front. Not long ago Alexander sent to The Real Paper a phone phreak manifesto containing the rationale for his work, which said in part:

"If you did not pursue a technical field in college, you were taught that you were not capable of understanding it, that it was a mysterious area, and that only a certain type of person studied those fields. Science and technology are deliberately mystified. The vast majority of people remain consumers and are conditioned to believe that technology is 'above' them and are astonished at the suggestion that they take control of that aspect of their lives. On the other hand we have a technical elite whose position requires the maintenance of this mystification."

"We have the responsibility to teach people how to liberate the phone system since we were able to become phone phreaks because of our privileged position in society. And remember the blue box isn't just a device to allow you to make free phone calls. It's a means by which everyone can learn about the phone system. Everyone should have access to a free communications network to exchange whatever ideas and information they have with whoever, wherever they wish. The phones belong to the people!"

The first other phone phreaks who saw this statement sent word back to us that it was just unadulterated bullshit as far as they were concerned, nothing but passe New Left rhetoric. And readers of the old Phoenix may recall the position of blue box maker "Jerry Ryan," who was quite proud of having served in Vietnam, and who refused to consider trying to tap into the FBI crime computer because he didn't want to interfere with its efforts in law enforcement (at least, those efforts not aimed at blue box makers).

Moreover, since last week we have come into possession of a nearly complete set of the newsletters sent out by the Youth International Party Line in New York City. In issue Number Three there is a Statement of Purpose:

"For those of you who don't understand exactly who the hell we are, let me make one thing perfectly clear. We are not them. Now don't misunderstand me."

Of course, they could be saying the same thing about us, but certainly not about themselves. To set the record straight, let me remind you not to judge someone by what he says, but what others don't say about what he says about them. Thank you."

Most of the rest of the issue, however, contains solid information about a staggering variety of ways to avoid paying for calls. YIPL's nameless editors are clearly of the Abbie Hoffman rip-off-the-system perspective, and want to spread the word around. Their circulation is at least several hundred, and many copies are no doubt xeroxed and passed from hand to hand. All in all, it would seem that the desire of the nameless caller from the "super phone phreak" circle for a damper on publicity is likely to be frustrated. The information is getting out, and will continue to get out.

Some technical notes are in order as a followup to last week's discussion of the black box (alias the Gronk or Agnew). A phreak reported that Ma Bell has put her computers to work to catch them, and the process goes something like this: The black box works by inhibiting the signals sent from your phone when you answer it, letting enough current get through to cut off the ringing but not enough to start the billing machinery. The circuit then looks to the billing tape as if your phone is still ringing. All calls are noted on computer tapes, which are analyzed for a variety of purposes beyond just sending out bills. One such purpose now is to look for phones which seem to be called and left ringing for long periods of time. Phones with a habit of getting such odd calls are slotted for additional examination to see if a black box is on the line. Our phone phreak source said that in light of this new development he only used his for brief calls, making several in a row if he had much to say.

MA BELL'S TOLLS

Black boxes, blue boxes, red boxes, what nonsense. Do you, or Ramparts, or any phone phreak really think that it is possible to "rip off" Bell Telephone? Come on, you can't be serious. The telephone rates that Bell Telephone charges are set by the Federal government. If their costs rise, so will their rates. Ma Bell is going to get her 10 percent return on investment no matter how many new and ingenious devices phone phreaks devise to try to stop her. The only people you are ripping off are the 90 percent of the public who pay for their telephone services each month. Each additional engineer that Bell Telephone hires in an effort to combat phone phreaks costs them money. Each additional device which they must install to neutralize phone phreaks costs them money. Bell Telephone doesn't absorb these costs, the public does.

I am sick and tired of reading articles published in underground papers glamorizing phone phreaks. Burglarizing the public is not glamorous.

Gary Cahn

A more basic problem for black boxers is looming on the horizon in the form of the Number One Electronic Switching System or ESS. Ma Bell has started converting her exchanges from mechanical equipment to the ESS, which is a solid state setup. ESS contains a circuit which will automatically break any improperly completed connections after about five seconds. In such exchanges a black box simply will not work, because the caller will be cut off before he can get more than a few words out. This design is not apparently a detection setup as such, but it doesn't have to be because it makes black boxes obsolete. ESSes have only been installed in a few places so far, our source said, and it will be several years and billions of dollars from now before all the exchanges in the country are converted, so he expects to keep using his black box for some time, with caution.

The most promising phone phreak gadget now seems to be the red box, which was demonstrated for us this past week. Other phreaks we talked to doubted that its use can be detected except much later when a serviceman opens a coin box which is credited with many paid calls and it turns out near-empty. To avoid this, phreaks move from pay phone to pay phone, figuring that the frequent mistakes most pay phones seem to make will throw the coin tallies off anyway and make detection that much harder. They believe this strategem has a bright future because Ma Bell can hardly do without pay phones, and it will take years to install any counter devices in the hundreds of thousands now in use. But Ma's long-armed security people don't give up easily, and there are sure to be several more rounds in the telephonic arms race.