

“KEEPING PACE - #54

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ELECTROCUTION PREVENTION

After my last newsletter was issued, I spoke to one attorney who had the impression after a quick reading of the newsletter that I was saying that Ground Fault Circuit Interrupters do not work very well. This is not true. Ground Fault Circuit Interrupters (GFCI's) were designed to prevent electrocutions and they achieve this goal very well. A letter I published in 1984 in the Institute of Electrical and Electronics Engineers (IEEE) magazine, Spectrum, is quoted below, in which I stated that I had never seen a GFCI allow an electrocution. (Since that letter, I have seen one case.) GFCI's are excellent preventers of electrocutions. What I was saying in my last newsletter is that GFCI's also happen to prevent some fires too.

“Grounding for Safety:

I am an EE (Ohio State 1964) who has investigated more than 40 accidental electrocutions during my forensic engineering activities over the past 12 years. Over 12 of these electrocutions were caused by 120 volts ac. In all of these cases, which involved power supplied by a utility, the third wire ground was either nonexistent or was interrupted at some point.

Third-wire grounds work. They either cause enough current to be drawn by the short circuit to pop the circuit breaker or fuse, or in the case of a soft short circuit they keep the voltage on the machinery and equipment casings so low that no one can be hurt.

I have never observed an electrocution to be caused by a double insulated tool or when a ground fault interrupter was in place. The one 120-V electrocution that occurred with a third-wire ground intact occurred because a portable generator was being used, and the workman dropped the junction between his power tool's cord and its extension cord into the water in which he was standing.

It is generally accepted in the industry that currents as low as 0.1 ampere can cause fatal electrocutions. Because of some of the tests I have done to simulate accidental electrocutions, however, it is my suspicion that currents as low as .01 amperes may sometimes cause fatal electrocutions.

Again, third-wire grounds work!
Frederick F. Franklin
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IEEE Spectrum March 1984”

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QUALITY LAWYERS

I was in the middle of a two day deposition being taken by opposing attorneys when they asked to see all of my publications. When I showed them my letter to the Cincinnati Enquirer shown below, they liked it so much that I thought I would quote from it here. With so much negative publicity about lawyers, a letter which discusses “quality” attorneys seems appropriate.

“THE CINCINNATI ENQUIRER, SUNDAY, MAY 19, 1985

QUALITY LAWYERS

I liked Tim McEnroe’s column “Lawyers Multiply; Justice Diminishes” (May 12). However, an unfortunate corollary can be gleaned from such essays: To win a case, one had better hire a less-than-scrupulous attorney or one who plays the games McEnroe describes. But it just isn’t so.

Twelve years ago, I started a professional engineering firm that investigates fires and accidents for insurance companies. Every case is prepared for expert testimony in court (although 98% of them settle out of court).

When I started working with attorneys, my greatest worry was that an attorney, either on the other side or my own client’s attorney, would be able to make me say something while testifying that I did not really mean to say, or involve me in his games. As the years went by, I learned that they really couldn’t do these things, so I stopped worrying about it.

In recent years, I learned something wonderful: It isn’t the deceitful lawyers (or experts) who win in court in my cases, but the gentlemanly and forthright ones. Juries are very perceptive. I believe they can tell the true measure of a lawyer or expert witness within a day in court, if not an hour.

There is an old adage that juries are very unpredictable. I think that’s probably true when both sides are playing games. In those cases, the jurors don’t know whom to believe. But when one side has a decent case and a competent, honest lawyer and expert, it will win every time. Lack of morality loses, in the long run, in the legal profession just as it does in every other field of endeavor.

I agree with Mr. McEnroe that contingency fees are a problem. In fact, I am told by a lawyer that ours is the only country in the world where lawyers are allowed to charge a contingency fee. I am also told that, in New York State, expert witnesses are allowed to charge a contingency fee of about 10%. Any truth to this?

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President, Professional Analytical and Consulting Engineers”