

## Law Office 101's RON SUSSMAN • A HAMMER & A NAIL INSTALLING A CEILING FAN



Some of you who have been here since the early '90s may remember the oddly-named *Get Outta Bed and Get a Hammer and a Nail* column that started appearing in the first or second issue of Paul Fahrenkopf's popular *Tower*

importantly, it provides an excuse to buy lots of cool new tools.

I hear some of you ask, "Didn't you already write a ceiling fan column sometime during the Clinton administration? Granted, no one read it, but are you really that lazy?" Yes.

If there is no existing light in the ceiling, you'll have to run a wire and install an electrical box. If there is another floor above the ceiling it's probably too much trouble for most folks to drill holes through the inaccessible ceiling joists and run a wire.

place you want to put the new fan and run the new wire through those holes.

Now you have to install the new box, or reinforce the old one. Building codes don't allow you to hang ceiling fans from an electrical box that is not secured to a joist because it will not be strong enough to hold the fan and the fan will fall and hit you on the head—dangerous and painful, but hilarious! You must use an electrical box that meets the NEC specs for ceiling fans (most do) and you must either screw it securely to a nearby joist in the ceiling, or to a 2 x 4 that you've securely nailed between two joists. Or you can buy an adjustable metal hanger that you nail between two joists. The hanger has a sliding box attached that you slide and clamp down directly over your hole.

From the room below, determine exactly where you want the fan to be and poke a hole through the ceiling at that point. Push a piece of stiff wire or something up through the hole so you can find the hole from the attic. From the attic, determine that the spot is appropriate; be sure there is not heat duct or something in the way. If all is well, center the electrical box over your hole and trace around the box with a pencil. Using a keyhole saw cut a hole through the ceiling following the pencil lines. Mount the box securely to a joist or to a two-by-four that you have nailed between two joists. Get out of the attic.

Now on your stepladder, attach the fan's mounting bracket to the box with two screws. Then attach the downtube assembly (the rod

that goes into the motor and holds up the fan) to the bracket. Fans usually give you a choice of downtube lengths. Be sure that the one you choose results in the blades of the fan being at least seven feet above the floor. Your taller friends will thank you.

There is often a hook on the downtube or some means of temporarily holding the motor assembly while you connect the wires. If not, enlist someone to hold the motor assembly up there while you connect the wires, or temporarily hang the

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*Bell* (the school newspaper of the USPTO™). The column was named after a semi-popular song of the same name by Lilith Fair regulars The Indigo Girls. The song extolled the virtues of working with one's hands, honest sweat, "gotta tend the earth if you want a rose"-kind of thinking that went out of vogue in the go-go '90s as pasty-faced geeks became our national heroes, and bands like The Backstreet Boys captured the nation's imagination, just as a parasitic wasp captures... but I digress. The point of the title quickly faded as the song was forgotten, however it stubbornly remained even though it no longer made sense; I saw to that.

Although the title has changed, point of the column remains the same—empowerment, self-reliance and quality. That's not to say that it always make sense to do things yourself. You could quite easily make your own soap on the kitchen stove, but why spend the time when the soap at the store is just fine and it's inexpensive? And it would probably be a big mistake for me to try and build my next car. But you can make or do many things better or less-expensively yourself and it's often fun, but most

Turns out I am. Think of this as a kind of badly-written form paragraph. "But Ron, it's winter. Isn't that the wrong time of year to be installing a ceiling fan? Are you an idiot?" Well sure, but a ceiling fan can help make a room feel more comfortable all year long. Ceiling fans have a switch on the motor that allows you to reverse the direction the blades spin. In the summer, the switch is set so that the blades push air downward. Result: you feel a cooling breeze. In the winter, the switch should be set so that the air blows upward. This will force the warmer air along the ceiling downward where you can feel it, but you will not feel the draft of the fan so much. Plus, reversing the motor will likely dislodge the several pounds of dust stuck to the top of the fan blades. The dust will then fall to the floor for easy clean-up. Win-win!

When you start thinking about where to install your new fan, it's best to pick a place on the ceiling where there's already an overhead light. Otherwise, you'll have to run a wire through the joists. Just be sure the spot you pick is at least two or three feet from the nearest wall, depending on the length of your fan's blades.

Hire somebody or forget about it, unless you're feeling extra-handy, and have a lot of extra time.

If there's an attic above the ceiling where you want to hang the fan, you're in luck. While in the attic, connect a new wire from some existing source of electricity, usually another light. (Helpful tip: to avoid death, turn off the power at the breaker/fuse box first.) Don't be lazy and just lay the new wire over the joists; drill a half-inch hole through each of the joists leading up to the



## fan, from page five

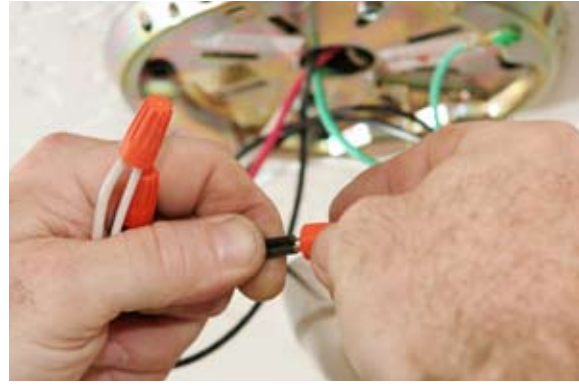
motor from the bracket using an appropriately bent wire coat hanger. Slide all of the decorative canopies, covers and rings up over the wires before you connect the wires.

If the fan does not have a light, and you want to operate the fan with a pull-chain, just connect the black supply wire to the black fan wire, the white supply wire to the white fan wire, and the ground wire to the mounting bracket or to the grounding screw on the downtube.

If your fan has a light fixture, there will be another hot wire, usually blue. If you want to turn the light on and off with a pull-chain, connect the blue wire to the two black wires.

If you are replacing an overhead light that turned on and off with a wall switch and you want to use the wall switch to control the light on your fan, connect one of the two switch wires to the black supply wire and the black fan wire. It doesn't matter which switch wire you connect, but it's traditional to connect the black one. Connect the white wire coming

back from the switch to the blue wire. You should color the end of



this white wire black with a felt tip pen so as not to confuse future generations; it really is a black supply wire supplying power to lights, after all.

Hang the motor from the downtube, removing the appropriately bent coat hanger. The motor is supposed to be able to swing on the half-ball on the end of the downtube. Make sure it swings freely and that no wires are caught in the ball or socket. Now slide the canopy-like covering up the tube to cover the wires and other ugliness, secure it

with the screws provided, and screw in the light bulbs.

Flip the breaker and fire up the fan. If the motor spins and the lights go on, you done good. If the Eastern Seaboard power grid goes out, not so good. Attach the fan blades and run the fan at all speeds checking for excessive wobble. If the wobble is acceptable, you're done.

If the fan wobbles, you'll have to balance the blades.

Adding weight to one of the blades will lessen the wobble. The hard part is figuring out which blade, how much weight, and where to put it. I find that the balancing kits that come with fans are useless because the weights are too light. Get several spring clothespins and put about three on one of the blades. Check for wobble. If it's worse, move the clothespins to the next blade. Keep doing this until wobble decreases. Then add or take away the number

of clothespins, and alter the spot on the blade where you attach the clothespins until the wobble is minimized. Now, put a piece of tape or something on the blade (so you can find the blade later), and remove the clothespins. What I do is weigh the clothespins on a kitchen scale, and then find some combination of flat washers that weighs the same and duct tape them to the top of the blade.



Now turn on the fan and bask in the cooling realization that you've just saved yourself \$110-\$225 in labor costs.

Next edition—home petroleum cracking! **TM**

## UPCOMING DATES TO REMEMBER

JANUARY 2008						
S	M	T	W	T	F	S
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FEBRUARY 2008						
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MARCH 2008						
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Date	Event	Information	Location	Time
FEB 2	TRANSIT SUBSIDY APPLICATION DEADLINE	<a href="http://ptoweb.uspto.gov/ptointranet/ohr/employees/transit_subsidy">http://ptoweb.uspto.gov/ptointranet/ohr/employees/transit_subsidy</a>		
FEB 10	WASHINGTON METROPOLITAN PHILHARMONIC	The Washington Metropolitan Philharmonic plays Kazik, Schubert, and Gerber at Bishop Ireton High School. <a href="http://www.wmpa.us">www.wmpa.us</a>	201 Cambridge Rd. Alexandria VA	5 PM
FEB 15	NAME THE TRADEMARKS ZINE DEADLINE	<a href="mailto:tmnewsletter@uspto.gov">tmnewsletter@uspto.gov</a>		MIDNIGHT
FEB 16	GEORGE WASHINGTON CLASIC 10K RACE	Runners race along Eisenhower Avenue, through Cameron Run, Holmes Run, and Ben Brenman Park. <a href="http://www.WashingtonBirthday.net">www.WashingtonBirthday.net</a>	Eisenhower Ave & Swamp Fox Rd Alexandria VA	8:30 AM RAIN OR SHINE
FEB 18	WASHINGTON'S BIRTHDAY	Federal holiday		
FEB 18	GEORGE WASHINGTON'S BIRTHDAY PARADE	Historic Alexandria Sites will have an open house with free admission. <a href="http://www.WashingtonBirthday.net">www.WashingtonBirthday.net</a>	Old Town Historic District Alexandria VA	1-3 PM
FEB 19	NEW EXAMINING ATTORNEYS JOIN TRADEMARKS			
MAR 1	ST. PATRICK'S DAY CELEBRATION AND PARADE	Classic Car Show, Fun Dog Show, and Parade <a href="http://www.ballyshanners.org">www.ballyshanners.org</a>	Old Town Historic District Alexandria VA	10 AM - 2:30 PM
APRIL 10-12	2008 USPTO NATIONAL TRADEMARK EXPO	<a href="http://www.uspto.gov/surveys/tmexpo2008.htm">www.uspto.gov/surveys/tmexpo2008.htm</a>	Madison Buildig 600 Dulany St. Alexanria VA	
31	OMMOLORTIN HENIAT NONULPU	Con venibh eleniscilla feuguero ero core molortin vullaor si.	123 Everywhere, Suite 000 City, ST 00000	8:00 PM For more Alexandria events, go to <a href="http://www.funside.com">www.funside.com</a> .