MY WEIRD PROMPTS

Podcast Transcript

EPISODE #197

Drip, Drip, Danger: Solving the Mystery of Home Leaks

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EPISODE SYNOPSIS

Is that rhythmic "drip, drip, drip" in the middle of the night a minor repair or a looming health crisis? In this episode, Herman and Corn dive into the stressful world of persistent home leaks, focusing on a listener’s ten-day struggle with water damage in Jerusalem. From the hidden dangers of aerosolizing mold spores with a hairdryer to the physics of "lateral migration" in stone buildings, they explore why finding the source of a leak is often harder than fixing it. Discover why high-tech drones might be failing you and how thermal imaging and HEPA filtration are the real heroes in protecting your respiratory health. Whether you're a renter or a homeowner, learn the professional secrets to stopping the damp before it stops you.

DANIEL'S PROMPT

Daniel

Herman and Coran, I want to discuss home maintenance in a rented property. We’ve had a persistent leak in our bedroom for over ten days since a major rainstorm in Jerusalem. Despite several attempts to find the source, it's still dripping. I have asthma and I’m concerned about the dampness and mildew. Beyond pressuring the landlord, what short-term fixes can we implement to protect our health, and what professionals should we contact to evaluate and resolve this issue quickly?

TRANSCRIPT

Corn

You know, Herman, there is a very specific sound that any renter or homeowner dreads, and it is that rhythmic, persistent drip, drip, drip hitting the bottom of a plastic bucket in the middle of the night. It is almost like a ticking clock, but one that is counting down to a massive repair bill or a health hazard. It is the sound of your sanctuary being invaded by the elements.

Herman

Oh, I know that sound all too well, Corn. Herman Poppleberry here, and I have spent many a night staring at a ceiling, trying to figure out if that new dark spot is getting larger or if it is just my imagination playing tricks on me in the low light. There is a psychological weight to it. You start to feel like the house is crying, or worse, that it is slowly dissolving around you. It is a unique form of domestic torture.

Corn

It is never your imagination, Herman. If you think it is getting bigger, it usually is. We are diving into a pretty stressful situation today. Our housemate Daniel sent us a message about a leak in his bedroom that has been going on for over ten days now. This was right after that heavy rainstorm we had here in Jerusalem at the start of January. We are recording this on January eighth, two thousand twenty-six, and the city is still drying out from the heavy rains we had at the start of the month.

Herman

That storm was intense. Some parts of the city saw on the order of seventy to eighty millimeters of rain in just forty-eight hours. For an old city built on hills with infrastructure that ranges from the nineteenth century to last week, that kind of volume is a recipe for disaster. Jerusalem is not just a city of gold; it is a city of porous limestone and complex drainage. Daniel is in a tough spot because he has asthma, and now there is this lingering dampness and the very real threat of mildew and mold. Ten days of moisture in a bedroom is not just an inconvenience; it is a biological hazard.

Corn

Right, and he is doing the right thing by pressuring the landlord, but we know how that goes sometimes. It can be a slow process of emails, phone calls, and handymen who show up, look at the ceiling, and shrug. Daniel is looking for short-term fixes to protect his health and wondering what kind of professionals actually need to be on-site to solve this, because so far, the people coming by have not found the source. They are literally looking at the symptoms but missing the disease.

Herman

It is the classic mystery leak. You see the water in one place, but the entry point could be thirty feet away on the other side of the building. Water is incredibly sneaky. It follows the path of least resistance, which often means traveling along a structural beam, inside an electrical conduit, or even jumping from one layer of stone to another before it finally decides to drop onto your bed. In Jerusalem construction, you often have a sandwich of materials: the outer stone, a layer of mortar, a concrete core, and then the interior plaster. Water can get trapped in that sandwich and migrate for days.

Corn

Before we get into the technical side of finding the leak, let us talk about the health aspect. Daniel mentioned his asthma. How dangerous is a ten-day-old leak in a bedroom, really? Is a hairdryer and some mold spray going to cut it, or is he basically sleeping in a petri dish?

Herman

Honestly, Corn, a hairdryer might actually be making it worse if not used correctly. If you have active mold spores and you blast them with a high-velocity stream of air, you are just aerosolizing those spores and sending them right into the lungs of someone with a respiratory condition. You are essentially turning a localized problem into an airborne one.

Corn

That is a terrifying thought. So, instead of drying it, you are basically distributing it. It is like trying to put out a fire with a leaf blower.

Herman

Exactly. When it comes to mold and asthma, the primary concern is the production of allergens and irritants. In some cases, you get mycotoxins, which are toxic secondary metabolites. But even common molds like Aspergillus or Cladosporium can trigger an asthma attack or lead to hypersensitivity pneumonitis if the exposure is high enough. Industry guidelines in water-damage restoration and indoor environmental health say mold can start growing on a damp surface within twenty-four to forty-eight hours. Daniel is at day ten. That means the colony is likely established, even if he cannot see the fuzzy black spots yet. It is growing behind the paint, inside the plaster, and in the dust of the room.

Corn

So we are well past the preventative stage. We are in the mitigation stage. If he has to stay in that room, what are the immediate steps? Because moving out of a bedroom is a huge disruption, especially if you have a family.

Herman

First, if the leak is still active, he needs to contain the moisture. But more importantly, he needs to control the air quality. A high-quality H E P A filter, which stands for high-efficiency particulate air, is non-negotiable here. It needs to be rated to capture particles as small as zero point three microns. That will catch the vast majority of mold spores, which typically range from two to ten microns in size. He should look for a high-quality air purifier with a True H E P A filter, ideally one tested to a standard comparable to H thirteen for capturing particles down to zero point three microns.

Corn

We actually talked about air quality and home sensors back in episode two hundred seventy when we were looking at future-proofing homes. Having a particulate matter sensor, like a P M two point five sensor, would tell him exactly how many particles are in the air. If those numbers spike when he enters the bedroom, he knows he has a problem. It gives you data to fight the landlord with, too.

Herman

Absolutely. And he should also be running a dehumidifier. Not just a small one for a closet, but a proper compressor-based dehumidifier that can pull at least ten or fifteen liters of water out of the air per day. You want to get the relative humidity in that room below fifty percent. Mold struggles to colonize and spread when the humidity is that low. In fact, if you can get it down to thirty-five percent, you can essentially put the mold into a dormant state, though it will not kill it.

Corn

What about the mold spray he mentioned? Is that effective, or is it just a cosmetic fix?

Herman

It depends on the surface. If it is a porous surface like drywall or plaster, which most Jerusalem apartments have, the mold is not just on the surface. It is like an iceberg. The roots, or hyphae, grow deep into the material. Spraying bleach or a commercial mold killer might kill the surface layer, but the moisture inside the wall will keep the colony alive. For a short-term fix, a solution of white vinegar is actually often better than bleach because vinegar can penetrate porous materials more effectively to reach the roots. Bleach is mostly water, and the chlorine evaporates quickly, leaving the water behind to actually feed the mold.

Corn

That is a great tip. Vinegar for the win. But Daniel mentioned the dampness is spreading around a column and the ceiling. If the landlord's people are coming in and flying drones or rappelling off the side of the building and still not finding it, what are they missing? It sounds like they are doing a lot of high-tech theater without any results.

Herman

This is where we get into the physics of Jerusalem construction. Daniel mentioned they are on the sixth floor and there is a roof above them. In many of these buildings, especially the ones built in the mid-twentieth century, you have a flat roof with a layer of bitumen or some kind of waterproofing membrane. Over time, that membrane cracks due to the extreme temperature fluctuations we get here. The stone gets hot in the sun and then freezes at night. That expansion and contraction is brutal on sealants.

Corn

But why is it so hard to find the crack? If water is coming in, there must be a hole.

Herman

Because of the beton, or concrete, slabs. If there is a tiny pinhole in the sealant on the roof, the water enters and hits the concrete. It does not just drop straight down. It might flow along the top of the slab, find a crack in the concrete, go through that, and then hit the electrical piping or a structural rebar. It can travel horizontally for a long distance. You could have a leak over the bedroom that actually started forty feet away over the kitchen. It is called lateral migration.

Corn

Daniel mentioned a water reservoir on the roof, an old-fashioned technology. He is probably talking about the dud shemesh or the water tanks. That adds another layer of complexity, right? Because those things are heavy and they are always full of water.

Herman

Huge. The dud shemesh is the solar water heater system. If one of those tanks has a slow leak or if the overflow pipe is not positioned correctly, it creates a constant source of water that is independent of the rain. However, since Daniel said this started with the storm, it is likely a drainage issue. In Jerusalem, we have these things called gargoyles or scuppers, which are the drainage holes on the side of the roof. If those get clogged with leaves or debris during a storm, the roof becomes a swimming pool.

Corn

And a roof is not designed to be a swimming pool. It is designed to shed water, not hold it. The weight alone must be incredible.

Herman

Precisely. One inch of water on a thousand-square-foot roof weighs over five thousand pounds. Once the water level rises above the flashing, which is that metal or bitumen strip that connects the roof to the side walls, it goes right behind the waterproofing. It is like tucking your shirt into your pants and then pouring water down your chest. Your pants are going to get wet no matter how waterproof they are. The water is literally bypassing the entire protective system.

Corn

So, who does Daniel need to call? The landlord sent a guy with a drone, which sounds high-tech, but did it actually help? It seems like they are just looking for obvious holes.

Herman

Drones are great for seeing if a tile is missing or if a drain is clogged, but they cannot see through the structure unless they are equipped with high-end radiometric thermal sensors. Daniel needs a leak detection specialist who uses thermal imaging cameras and moisture meters. We are in two thousand twenty-six; this technology is standard now, but not every handyman has it. He needs a moomche itum, a sealing expert.

Corn

How does the thermal camera find a leak? Does it see the water itself?

Herman

It is all about evaporation and thermal mass. Water-damaged areas are usually cooler than the surrounding dry material because of evaporative cooling. If a professional comes in with a high-resolution forward-looking infrared camera, they can see the thermal signature of the water path behind the plaster. It looks like a dark, blooming flower on the screen. It allows them to trace the moisture back to its highest point, which is usually the entry source. They can literally see the trail of breadcrumbs the water left behind.

Corn

That sounds much more effective than just guessing. What about acoustic detection? I have heard of people using microphones to find leaks. Is that just for pipes?

Herman

That is usually for pressurized pipes. If a pipe inside the wall has burst, it makes a specific hissing or rushing sound that ultrasonic microphones can pick up. But for a rain-related leak, which is gravity-fed and often intermittent, thermal imaging and moisture meters are the gold standard. A moisture meter has two pins that you press into the wall, and it measures the electrical conductivity. Since water conducts electricity better than dry plaster, it gives you a digital readout of exactly how saturated the wall is. If the meter says ninety percent saturation in one spot and ten percent six inches away, you have found your path.

Corn

So if I am Daniel, I am telling the landlord, stop sending general handymen. Send a certified leak detection professional with a thermal camera. And maybe a structural engineer if the dampness is around a column.

Herman

Exactly. Columns are load-bearing. If the rebar inside that concrete column is getting wet repeatedly, it will start to rust. Rusting steel expands, which causes the concrete to crack and spall. That is not just a leak issue; that is a structural integrity issue over the long term. If the landlord does not take it seriously, Daniel should mention the words structural compromise. That usually gets their attention because it affects the value of the entire building.

Corn

You know, it is interesting you mention the columns. It reminds me of episode two hundred ninety-six where we talked about the secret economy of air cargo and how infrastructure has to be so precisely maintained to avoid catastrophic failure. Buildings are the same way. We think of them as solid and permanent, but they are actually these breathing, porous systems that require constant vigilance. We treat them like rocks, but they are more like sponges.

Herman

They really are. And in a city like Jerusalem, you have layers of history literally built on top of each other. You might have a nineteen-fifties expansion on top of a nineteen-twenties base. The ways those different materials expand and contract in the cold Jerusalem winters create gaps. There is also the issue of the kuchal, which is the mortar between the stones. If the pointing is old, it becomes porous. During a wind-driven rainstorm, the water is pushed into those cracks by air pressure. It is called capillary action.

Corn

Capillary action. That is the same force that pulls water up through the roots of a tree, right? It defies gravity.

Herman

Exactly. The tiny gaps in the mortar act like straws. They pull the water in, and once it is inside that thick stone wall, it can take weeks to dry out. This is why Daniel's wall is still damp ten days later. Even if the rain stopped, the wall is holding liters of water like a sponge. It is a slow-release system of misery.

Corn

Let us talk about the short-term bedroom situation. Daniel asked if they should even be sleeping in there. If you have asthma, and there is a bucket of water next to your bed and a damp wall, what is the verdict? Is it safe to just tough it out?

Herman

I am not a doctor, but from a building science perspective, if you can smell it, you are breathing it. That musty smell is actually volatile organic compounds being released by the mold as it digests the building materials. If Daniel has a guest room or even a couch in a dry room, he should move there until the humidity in the bedroom is stabilized. The risk of a severe asthma attack is just too high. He should also consider the stack effect. Air in a building tends to rise. If the leak is on a lower floor, the spores can travel upward through the entire apartment.

Corn

It is a huge disruption to your life, though. Especially with a young son in the house, even if the leak is not in his room, those spores are traveling. It is not like the air stays in one place.

Herman

They are. Air currents in an apartment move through the hallways and under doors. If I were Daniel, I would seal off the affected bedroom. Close the door, put a towel under it, and keep the window in that room slightly cracked if it is not raining, to allow some of the moisture to escape, while running that dehumidifier full blast. You want to create a pressure differential that keeps the bad air inside the room and then vents it out the window.

Corn

Is there any D I Y way to seal the leak from the inside? Like a waterproof paint or a sealant? I see those commercials for the spray-on rubber all the time.

Herman

That is a trap, Corn. Never, ever try to seal a leak from the inside.

Corn

Why not? It seems logical. Stop the water from coming into the room, save the carpet.

Herman

Because all you are doing is trapping the water inside the wall. If you put a waterproof coating on the inside of the ceiling, the water will just pool behind that coating. It will saturate the plaster even more, and eventually, the weight of the water or the rot of the material will cause a much larger chunk of the ceiling to collapse. You have to stop the water at the source, which is the exterior. You cannot win a fight against water by trying to hold it back from the wrong side. It is like trying to stop a flood by holding your hand over a hole in the dam.

Corn

That makes sense. It is like putting a band-aid on a bursting pipe. It just builds up pressure elsewhere. Now, Daniel mentioned the landlord is being somewhat responsive but the succession of people has not fixed it. This is a common tactic. Landlords often hire the cheapest person first to see if a simple fix works. It is a war of attrition.

Herman

It really is. Daniel needs to document everything. We should probably mention the legal side, though we are not lawyers. In Israel, rental law is quite robust: under Israeli rental statutes, often referred to in English as the Tenant Protection or Fair Rental Law, landlords are obligated to provide a habitable dwelling. A persistent leak that causes mold and impacts health is a breach of that warranty of habitability.

Corn

What are the timelines? Does the landlord have forever to fix it as long as they are trying?

Herman

No. For serious defects that may render an apartment uninhabitable, Israeli rental law and many standard contracts set relatively short deadlines—on the order of a few days for urgent issues and up to about a month for less urgent but significant defects. Ten days for an active leak in a bedroom is pushing the limit of reasonable, especially with a documented health condition like asthma. Daniel should check with a local tenant's rights organization for guidance on the exact timelines that apply to his situation.

Corn

He should probably get a letter from his doctor, right? Something that says patient has asthma, mold exposure is a critical risk. That usually moves things from the fix it when we can pile to the fix it now pile.

Herman

Absolutely. Documentation is his best friend. Photos of the leak, a log of every time it drips, the size of the damp spot measured with a ruler every day, and that medical note. If he has to buy a dehumidifier or an H E P A filter, he should keep the receipts. Under Israeli law, if a landlord fails to fix a defect after being given notice, the tenant may sometimes have the right to fix it themselves and deduct the cost from the rent, but he should be very careful and get legal advice before doing that. It is a powerful move, but it has to be done exactly right.

Corn

I remember in episode two hundred fifty-seven, when we were playing with those E S P thirty-two sensors, we talked about making a D I Y flood sensor. It is basically two wires close together. When water touches them, it completes the circuit and sends an alert. If Daniel wanted to be really nerdy about it, he could set one of those up to log exactly when the leak is active. It would prove if it is only happening during rain or if it is constant.

Herman

That would be brilliant. He could use a simple moisture sensor module connected to an E S P thirty-two and log the data to a service like Adafruit I O. If the data shows the leak starts exactly two hours after the rain begins, he can tell the sealing expert to look at the roof drainage. If it is constant, he can tell them to look at the water pipes. That data alone would help the professionals narrow down the search area by fifty percent. It turns a mystery into a math problem.

Corn

Let us talk about the facade for a second. Jerusalem stone is beautiful, but it is porous. And the mortar between the stones can fail. You mentioned the pointing earlier.

Herman

Oh, the kuchal! That is a huge source of leaks in Jerusalem. The kuchal is the mortar between the stones, and it cracks over the decades. During a heavy rainstorm with high winds, the rain is not just falling down; it is being pushed sideways against the building. The water gets into those cracks, and because of capillary action, it gets sucked deep into the wall. It can take weeks for that moisture to evaporate out through the stone. This is why the dehumidifier is so important; he needs to pull that moisture out from the inside because the stone is holding it like a reservoir.

Corn

What about the insurance angle? Should he be talking to his renter's insurance, or is this strictly a landlord problem?

Herman

Definitely talk to the insurance. Most renter's insurance policies cover damage to personal property caused by water leaks. If his bed or clothes are getting moldy, that is a claim. And some policies even cover loss of use. If the bedroom is truly uninhabitable, the insurance might pay for a hotel or a portion of the rent while it is being fixed. It also puts another professional on the case, as the insurance company might send their own adjuster who is often very good at finding the source because they want to subrogate the claim to the landlord's insurance.

Corn

Subrogate. That is a very Herman Poppleberry word. It sounds like something a wizard would do.

Herman

Guilty as charged. It just means the insurance companies fighting each other over who has to pay. And usually, when insurance companies get involved, things start moving faster because there are legal timelines and financial penalties they have to follow. They have much bigger lawyers than the landlord does.

Corn

So, to summarize for Daniel: Step one, move out of the room if possible, or at least get an H E P A filter and a heavy-duty dehumidifier. Step two, stop using the hairdryer and use vinegar for surface mold. Step three, demand a leak detection specialist with a thermal camera, not just a guy with a drone. And step four, document everything for the landlord and the insurance company.

Herman

And don't forget step five: Check the roof drains yourself if you can safely access it. Sometimes a single plastic bag or a handful of pigeon feathers stuck in a drain is the difference between a dry ceiling and a flood. It is the simplest fix, but it is often the one everyone misses because they are looking for something more complicated.

Corn

That is a lot for one person to handle while also dealing with a storm and a young kid. But it is the reality of renting in an old city. Jerusalem is a city of stone, but water always finds a way. It has been carving through this landscape for millions of years; a six-story apartment building is not going to stop it without some serious maintenance.

Herman

It really is a battle against entropy. You know, it makes me think about how we manage our own home here. We are always so focused on the tech, the smart plugs, the internet speeds, like we discussed in the home network episode, but at the end of the day, the most important technology in the house is the roof. It is the most underrated piece of tech we own.

Corn

A good roof is a masterpiece of engineering. It has to handle U V radiation, extreme temperature fluctuations, wind loads, and thousands of gallons of water. When it works, you never think about it. When it fails, it is all you can think about. It is the ultimate invisible infrastructure.

Herman

Well, I hope Daniel gets some resolution soon. It is miserable sleeping in a damp room. And Daniel, if you are listening, definitely prioritize that H E P A filter. Your lungs will thank you. The mold is the hidden enemy here, much more so than the water itself. The water ruins your stuff, but the mold ruins your health.

Corn

We have covered a lot of ground today, from the physics of capillary action in Jerusalem stone to the specific types of sensors that can help track a leak. It is a reminder that our homes are these complex systems that we often take for granted until they start dripping on us.

Herman

And if you are a regular listener, you know we love these kinds of deep dives into the mundane things that actually run our lives. Whether it is the North Atlantic Tracks we talked about in episode two hundred ninety-three or the way air defense works in episode two hundred ninety-five, everything is connected by these invisible systems of engineering and logic. Even a leaky ceiling has a story to tell if you know how to listen to the drips.

Corn

Exactly. And hey, if you are finding these discussions helpful or even just entertaining while you are dealing with your own home maintenance nightmares, we would really appreciate it if you could leave us a review on your podcast app or on Spotify. It genuinely helps other people find the show, and we love hearing from the community. We are coming up on three hundred episodes soon, which is hard to believe.

Herman

It is! We have been doing this for a while now. From our first New Year's special back in episode two hundred twenty-six to today. It has been a wild ride through the weirdest prompts the internet has to offer.

Corn

And there is always more to explore. There is always another weird prompt waiting in the wings. Speaking of which, if you want to get in touch with us, you can find everything at my weird prompts dot com. We have the full archive there, the R S S feed, and the contact form if you have a mystery of your own you want us to tackle.

Herman

Just maybe not a mystery leak. I think I have had enough of those for one week. My brain is starting to feel a bit damp.

Corn

Fair enough. Although, I am now tempted to go buy a thermal camera just to see what our walls look like. I want to see the invisible world of heat signatures.

Herman

Oh, don't do it, Corn. You will never sleep again. You will see every tiny thermal bridge and every cold spot where the insulation is missing. It is like the Matrix; once you see the thermal signatures, you can't un-see them. You will be walking around with a caulk gun and a roll of insulation until three in the morning.

Corn

Ignorance is bliss when it comes to home insulation, I suppose. Alright, I think we have given Daniel enough to work with. Hopefully, the landlord steps up and they can get that room dried out before the next storm hits. Jerusalem winters are long, and we are only in January. There is plenty more rain on the way.

Herman

Fingers crossed. Stay dry, Daniel. And keep that vinegar handy.

Corn

Thanks for joining us for another episode of My Weird Prompts. I am Corn.

Herman

And I am Herman Poppleberry.

Corn

We will see you next time, and stay dry out there.

Herman

Bye everyone!

Corn

Thanks again to Daniel for the prompt. It was a tough one, but a good reminder for all of us to check our gutters and our kuchal. Don't forget the kuchal!

Herman

I will never let you forget it, Corn. Until next week!