



# PREPPER'S SURVIVAL HACKS

— 50 DIY Projects —  
for Lifesaving Gear, Gadgets and Kits



Jim Cobb

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**50 DIY Projects**  
for Lifesaving Gear, Gadgets and Kits

**Jim Cobb**



**Ulysses Press**

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Published in the US by:  
Ulysses Press  
P.O. Box 3440  
Berkeley, CA 94703  
[www.ulyssespress.com](http://www.ulyssespress.com)

ISBN: 978-1-61243-519-0  
Library of Congress Control Number: 2015937561

10 9 8 7 6 5 4 3 2 1

Acquisitions editor: Keith Riegert  
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Proofreader: Lauren Harrison

Design and layout: [what!design @ whatweb.com](mailto:what!design@whatweb.com)

Cover artwork: from [shutterstock.com](http://shutterstock.com); nuts and bolts © Viktor Gladkov, screw heads set © DeCe, cotton cable cord © Szasz-Fabian  
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Index: Sayre Van Young

Distributed by Publishers Group West

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*For Tammy. Every day, I fall for you just a little bit more.*

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# INTRODUCTION

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This book is very different from the others I've written. Many readers of my previous books have asked for more photos. The thing is, in my other books, there really wasn't a whole lot that warranted illustration. I mean, sure, I could have included some sort of stock photo of a bunch of people standing around to accompany the topic of group versus individual survival planning. But, really, would that photo have added any true value to the book?

As an author, I've always tried to be conscious of what I'm providing to the reader in exchange for their hard-earned dollars. As a reader myself, I've been suckered more than once by a flashy cover and some nifty graphics, only to find the text lacking. Too many writers look at photos and graphics as padding, rather than as actually adding value to the book. They look at photos, charts, diagrams, and all that fun stuff as a great way to add pages to the book, and that's about it. While a picture might indeed be worth a thousand words, it doesn't necessarily follow that a picture can fully replace all of those words. A great example of how photos are *supposed* to work can be found in any of my good friend John McCann's books, such as his excellent *Practical Self-Reliance*. He not only understands when a photo is needed, he's one hell of a photographer.

Leafing through the book you're holding (or scrolling through the pages on your tablet), you'll no doubt notice there are a ton of photos. To be honest, this book was a pain in the butt to create because of all those pictures. I'm not a photographer. I have a couple of friends who are, and they no doubt cringe and wince at any photos I post online or share with them. The composition is likely all messed up and the photo probably isn't framed the way it should be.

Here's the thing, though. The photos contained in this book aren't meant to hang on the wall of your kitchen or den. I hold no illusions that anyone could look at a photo here and think it in any way approaches *art*. To my way of thinking, as long as the photos allow you to follow the bouncing ball and complete the projects, they've served their purpose.

As for the projects themselves, there's some pretty neat stuff here. Some of it you may have seen before. I know the Milk Jug Lantern made the rounds online a while back. Why did I include it here? Two reasons, actually. First, there are going to be at least some readers of this book who've not seen before. Second, part of the purpose of this book is to give you a resource to use during a disaster and the recovery period. Facebook and Google might not be viable options at that point. You might be in need of some sort of ambient lighting during an extended power outage and remember, "Hey, one of Cobb's books had a few lanterns in it!"

Other projects are likely to be brand-spankin' new to you. I've searched high and low for interesting ways to repurpose and recycle stuff you can find around the house and have put my own twists on a few ideas as well. Keep in mind, too, that the purpose of this book is *doing*, not just reading. Get up off your butt and actually try some of these projects. See what works for you and what doesn't. Few things in this book, if any, are truly universal. Every reader comes to the table with their own skill set, experience level, and individual circumstances.

Every project I chose to include in this book can be done by the average person. None require some



sort of obscure tool or years of experience with carpentry, plumbing, or any other trade. In fact, just about any project in this book could be completed by a middle schooler. While some of the projects might be decidedly simplistic, they all work and will accomplish the intended goal. That's the whole point, right?

I'd love to hear from you and find out how you've fared with some of the projects in this book, as well as any you've come up with on your own. I answer all of my emails myself and maintain my own Facebook and Twitter accounts. If you send me a message, you can be assured it will reach me, not just some virtual assistant.

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One last thing. When you're working on these projects, please exercise common sense and good judgment. Make full use of the appropriate safety gear. Any time you're using tools, wear safety goggles. If you're cutting metal, whether with tin snips or a saw, make sure you're wearing gloves. While I want to hear about your successful projects, I really don't want you sending me pictures of lopped off fingers or the 72 stitches you needed after your failed attempt at making a Hobo Stove.

Have fun with this stuff, folks. Let your imagination run wild, get creative, and see what comes to mind after you've seen what others have done.

# WATER

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Common wisdom dictates that the human body can survive about three days without hydration. While that may be true in a technical sense, in the real world, the last day or two of that time period would be spent in agony and delirium. Don't ever try to ration water. If you have potable water available, drink it. The problem with rationing is that doing so may hinder your ability to search for more water sources. A far better plan is to keep your body running as efficiently as possible as you attempt to locate additional supplies.

It is almost as important to understand that water from natural sources, such as rivers, lakes, and ponds, absolutely must be treated before consumption. Failure to do so puts you at risk for some pretty serious health issues, such as giardia and cryptosporidium. The best way to treat water prior to drinking is to boil it. This will kill anything that might be in the water that could harm you. There is no need to let it boil for several minutes, either. Just bringing it to a rolling boil is sufficient.

Of course, there are several commercial products you could purchase that will filter and disinfect your water. These include various products sold by LifeStraw, Berkey, and Sawyer. All work very well and are worthy of purchase. The trick is to make sure you have the filter device with you any time you venture into the field, just in case. That snazzy new water filtration straw does utterly no good sitting on a shelf at home while you're dying of thirst sitting next to a pond.

Another important consideration is to carry some sort of container you can use to transport water. Many of us routinely carry some sort of water bottle with us when hiking, so that poses little issue. However, I strongly advise you to consider investing in a stainless steel water bottle rather than relying on something made from plastic. While it is possible to boil water in a plastic container if you know what you're doing and you're careful, it is far easier and safer to do so using a steel bottle.

A product I wholeheartedly endorse is the Aqua-Pouch, designed, produced, and sold by Survival Resources. It is basically a heavy-duty plastic bag that folds up small and flat. Keep it in your kit and you'll always have a container you can use to transport water. It holds up to 1 liter, which coincidentally is the same measurement many water treatment products utilize.

Water is a necessity for life. It is important to plan ahead so you have the means to collect and disinfect it. The first two projects in this section will focus on water collection, followed by two projects on DIY filtration devices.

# TRANSPIRATION BAG

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While you're not going to get a ton of water with a single transpiration bag, you can get a fair amount of bang for your buck by putting out several of them. Transpiration bags use the sun's heat and energy to condense moisture from the plant and collect in the bag. They work all by themselves once they're set up. What seems to work well is to set them up in the morning and collect the water in the evening.

## MATERIALS

Clear garbage bag

Small stone

Twist ties or rope

- 1 The first step is figuring out where you will put your transpiration bag(s). The ideal location would have a few deciduous trees in the immediate area—large ones with branches hanging down to where you can easily reach them. Deciduous trees are the ones with leaves, as opposed to conifers which have needles. Shrubs and bushes will also work, but the larger they are, the better. Also, take a few minutes to make sure the trees or shrubs aren't poisonous to you.



- 2 Place the garbage bag over a few of the leaf-bearing branches, stuffing in as many as possible. Toss in a small stone and use it to pull one corner of the bag down toward the ground a bit. Secure the open end of the bag tightly against the branches using the twist ties or rope. You want this closure to be as airtight as possible.



- 3 As the day goes on, the sun's rays will heat up the inside of the bag, forcing water from the leaves to condense on the sides of the bag. From there, it will trickle down to the rock-weighted corner. Depending upon conditions, you could see as little as 1 cup of water to as much as 1 quart or so.
- 4 To get the water out of the bag, you can either remove the bag completely and carefully pour it out or snip a small hole in the corner, then tie the bag tightly above that cut after emptying the water.

5 I don't like to keep a bag on the same tree for more than 1 or 2 days, provided I have other options for placing the bag. It puts stress on the tree, of course, and while my life is worth more to me than the life of that tree, if I don't have to put undue stress on it, I won't.

# SOLAR STILL

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I'm going to be flat-out honest with you. I don't in any way, shape, or form endorse the use of a solar still for acquiring water in a survival situation. I'm including it here for two reasons.

- 1 In any survival manual, it is almost expected that the solar still be mentioned, and its absence in this book would be noticeable.
- 2 I wanted to include it specifically so I could talk a bit about why you shouldn't rely upon it.

## MATERIALS

Shovel

Bucket or clean container

Large plastic tarp

Large rocks or logs

Small rock

- 1 On the surface, the solar still is a fairly straightforward project. Using your shovel, dig a hole a few feet deep. At the bottom of the hole, roughly in the center, place your bucket or other clean container. Next, stretch the plastic tarp across the top of the hole using the large rocks or logs to secure it in place. Finally, place a small rock at the center of the tarp, which weighs it down above your container.
- 2 The idea is that the sun will heat up the inside of that hole, causing moisture from the ground to evaporate, then condense on the bottom of the plastic tarp. It will then run along the plastic to the point above the bucket, into which it will drip.

Here's the thing. The amount of water you'll gain through the use of the solar still is, quite literally, a drop in the bucket compared to the amount of energy you'll expend by digging the hole and setting everything up.

Don't believe me? Go ahead, set one up tomorrow and see how well it performs. If you get more than 2 cups of water, you'll be doing fairly well.



# OSMOSIS WATER FILTER

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This isn't the greatest solution for water filtration, as it won't do anything about bacteria and such. However, it works fairly well at taking turbid, cloudy water, such as from a mud puddle, and turning clear by removing sediment and debris. Plus, it works all by itself once you get it set up.

## MATERIALS

2 containers, such as pitchers, buckets, or glasses

Cotton rope, cotton bandanna, or paper towel

- 1 Place the two containers side by side. Pour the dirty water into one container. Put one end of the cotton rope into the water and run the rope to the other container. The free end of the rope should dangle into the second container but not rest on the bottom.



- 2 If you don't have cotton rope, a cotton bandanna or even a paper towel will do. To make things easier, I roll the bandanna up into a rope and use a few rubber bands spaced along the length to keep it in place. Here, I've done the quick and dirty version by rolling up a paper towel.
- 3 It takes a while but water will gradually be soaked up into the rope or bandanna and make its way to the other end, dripping into the other container. The sediment and such will be left behind.
- 4 I cannot stress enough, though, that the filtered water will still need to be purified in some way. Boiling is best, as that will kill pretty much anything in the water that could hurt you. All this filtration system does is remove the larger impurities, allowing your purification method to work that much more efficiently.

# LAYERED FILTER

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This project results in a quick and easy way to filter sediment and such out of water you've obtained from a pond, stream, or even a mud puddle. It does not, however, disinfect the water. You'll still need to boil it or use some other means to kill any parasites and other nasty stuff. Even though the parasites may be so small you can't see them, they will still ruin your day.

## MATERIALS

2-liter bottle

Razor knife

Hole puncher (optional)

Cotton bandanna or 1 to 2 coffee filters

Old sock or rag

Rock or rubber mallet

2 handfuls each of charcoal, sand, and gravel

- 1 The 2-liter bottle should be empty and clean. It doesn't matter if the plastic is clear or green. Using the razor knife, cut off the bottom of the bottle. Once the filter is complete, it will be rather heavy so you might also wish to punch two holes near the now-open bottom so you'll be able to hang the filter using cord or wire. As you'll see in the following photos, I've balanced my filter on top of a small glass jar.



- 2 Take the cotton bandanna and stuff it down inside the bottle, pushing it into the neck a bit.

Alternatively, you could use one or two coffee filters in place of the bandanna.

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- 3 The next layer is charcoal. You can use any burnt wood from your wood stove, fireplace, or campfire, as long as that wood wasn't pressure treated, such as lumber used for outdoor projects. Do not use charcoal briquettes, either, as they likely have been treated with chemicals to make them easy to light. Rather, just grab a few large chunks of charcoal from your campfire, place them in an old sock or rag, then smash them into small pieces with a rock or rubber mallet. You want your charcoal layer to be about 2 inches thick, and by breaking the chunks into smaller pieces, you prevent gaps where water could pour through without running through the charcoal.



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- 4 Next comes the sand layer. You can use regular sandbox sand for this, but the smaller the grains of sand, the better. So, if you have an opportunity to use something finer or softer than sandbox sand, go for it. As with the charcoal, this layer should be about 2 inches thick.



- 5 Finally, add a layer of gravel. This layer should also be roughly 2 inches thick. Nothing fancy is needed, no special kind of gravel, but smaller stones are better than larger ones. Just collect a couple of handfuls from the ground, rinse them off, and toss them into the bottle.



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- 6 Some people like to repeat the sand and gravel layers. I've even seen a layered filter where a coffee filter was used between each of the layers. Honestly, all of that's probably overkill, but if you have the resources available and are so inclined, have at it.
  - 7 To use, hang the filter above a clean container. Slowly pour water into the filter and let gravity do the rest. You'll probably notice that this isn't a fast filtration process. It is best to pour some water in, then go off and do something else for a bit.



- 8 Again, the filtered water still needs to be boiled or treated in some way before consumption. Filtering the water in this way helps to lengthen the life of your purchased water disinfection gear, as that equipment won't need to work quite as hard to make the water potable.

# FOOD ACQUISITION

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In this section, I'm going to talk about a few different projects that will help you grow or otherwise obtain food. Most of these projects aren't suited for last-minute solutions when you're starving, but instead are things you can implement today so you're ahead of the game later. I firmly believe you can grow at least *some* amount of food, no matter where you live. It is just a matter of trying different approaches until you find one that works for you. Many urban dwellers have very successful patio gardens, using various containers to house their veggies and fruits.

For the meat-eaters, we have a couple of projects for fish and game acquisition. Please note, there are laws on the books that govern when you can and cannot harvest wild critters. While these laws might be rather low priority in the aftermath of a major disaster, they are still laws and there are potential penalties for breaking them. Use common sense and remember any legal issues that arise are yours and yours alone to sort out.

I'm also going to talk about food you can store for later use, such as DIY Meals Ready to Eat (MREs) for your bug out bag. Using a DIY approach ensures you'll not only save money, but that you'll actually want to eat what you have packed away.

Our bodies use calories as fuel. While many of us have an excess of fuel around our middles and thus are in little danger of starving to death in just a couple of days, tummy rumbles tend to be a distraction. We need to be able to focus on more important matters in the aftermath of a disaster. Planning ahead for food needs is a great help in that regard.



# POCKET FISHING KIT

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You'd have to search long and hard to find a fishing kit that is smaller than this one. When you're done, you'll have a tiny container holding sinkers, hooks, line, and even a couple of small, artificial lures if that strikes your fancy.

## MATERIALS

Razor knife or hacksaw

2 plastic soda bottles with caps, any size

Fine-grit sandpaper

Hot glue gun or epoxy

Old gift card or credit card

Marker

Scissors

Braided fishing line

Split shot sinkers

Hooks and/or lures

- 1 Start by cutting the tops off of each of the soda bottles. A hacksaw works best, though you might be able to make do with a razor knife. Cut just behind the plastic lip or ridge and try to make the cut as straight as possible.





2 Next, sand down the cut sides of the bottle tops. They don't need to be perfect, but the smoother, the better.





- 3 Once that's done, plug in the glue gun to heat up. Then, place the cut side of one of the bottle tops on the gift card. Use the marker to draw a circle around the bottle top and cut out the circle with the scissors.





- 4 Run a bead of glue or epoxy around the perimeter of the circle you cut from the gift card, then place one of the bottle tops over it, gluing it in place. Once the glue has dried, flip the top over and do the same to the other side.

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