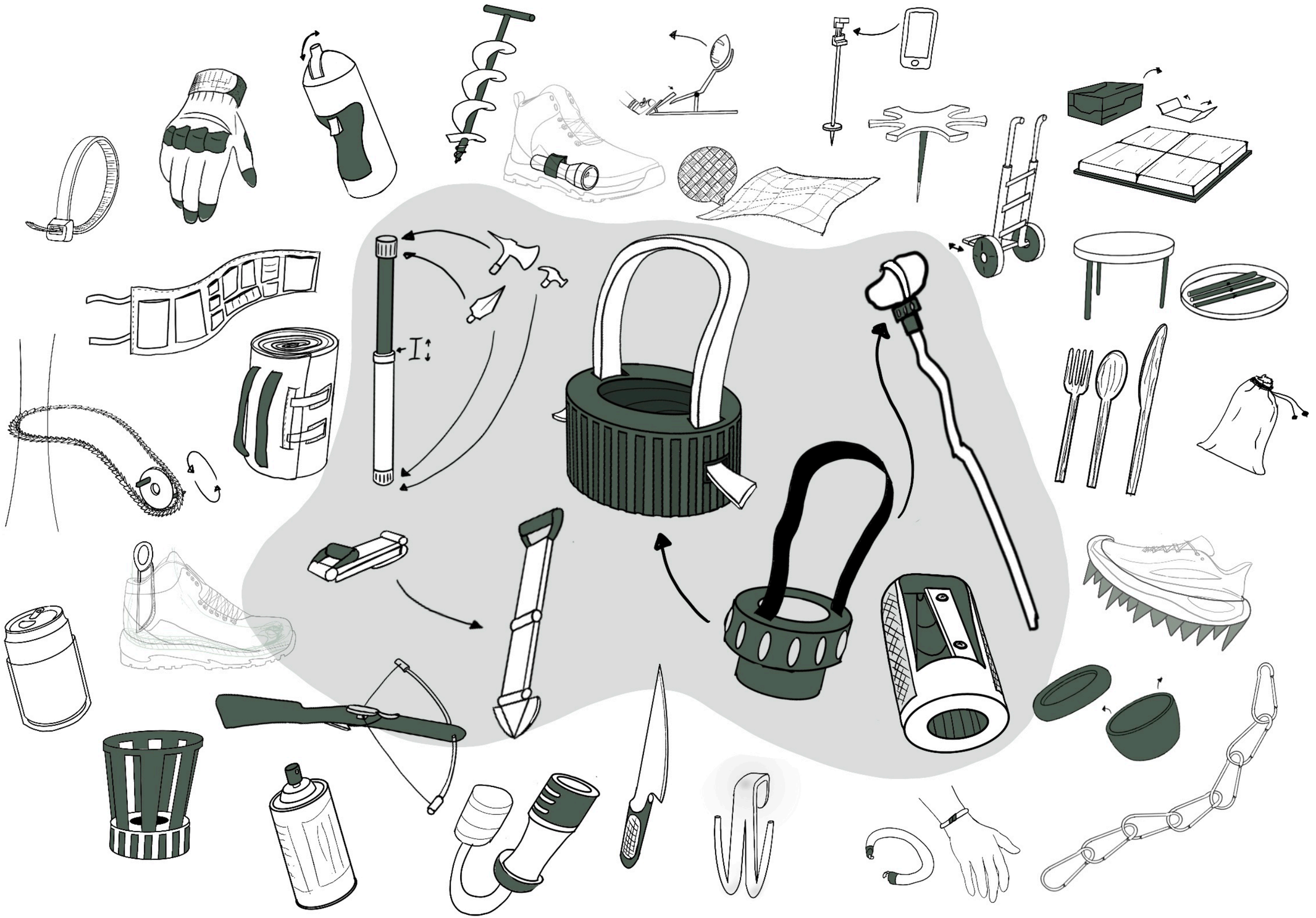
HAFTWORKS

Coupler

A new solution for portable tools



1. Problem

Long handled tools are difficult to transport due to their **size and weight**

2. Guiding Question

How can a product be used to make long handled tools more **portable**?

3. Solution

A product that can **integrate** with a stick you find to create a long handled tool wherever you are

0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100+

Target Age Range

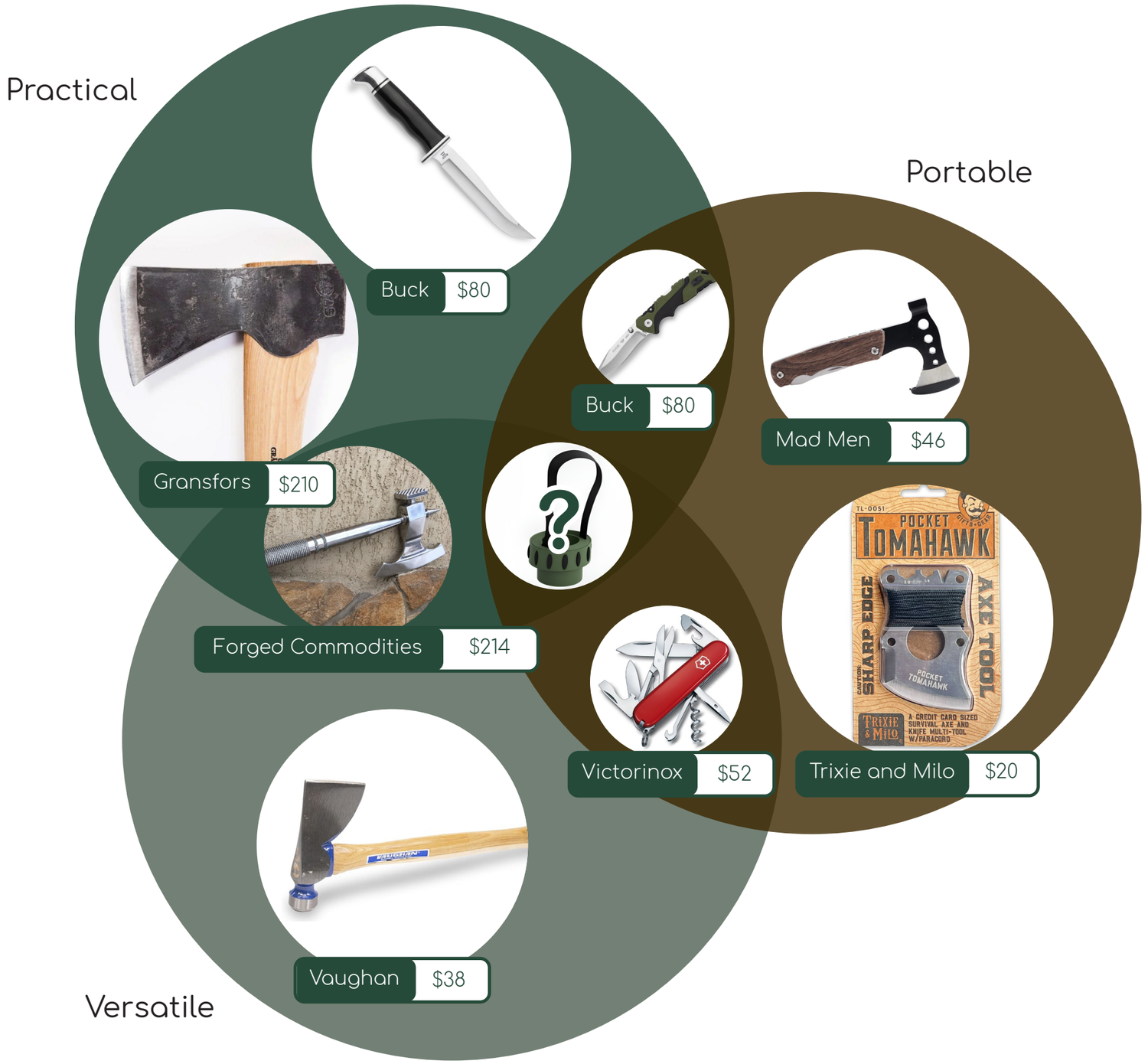
Hobby

Hiking

Personality

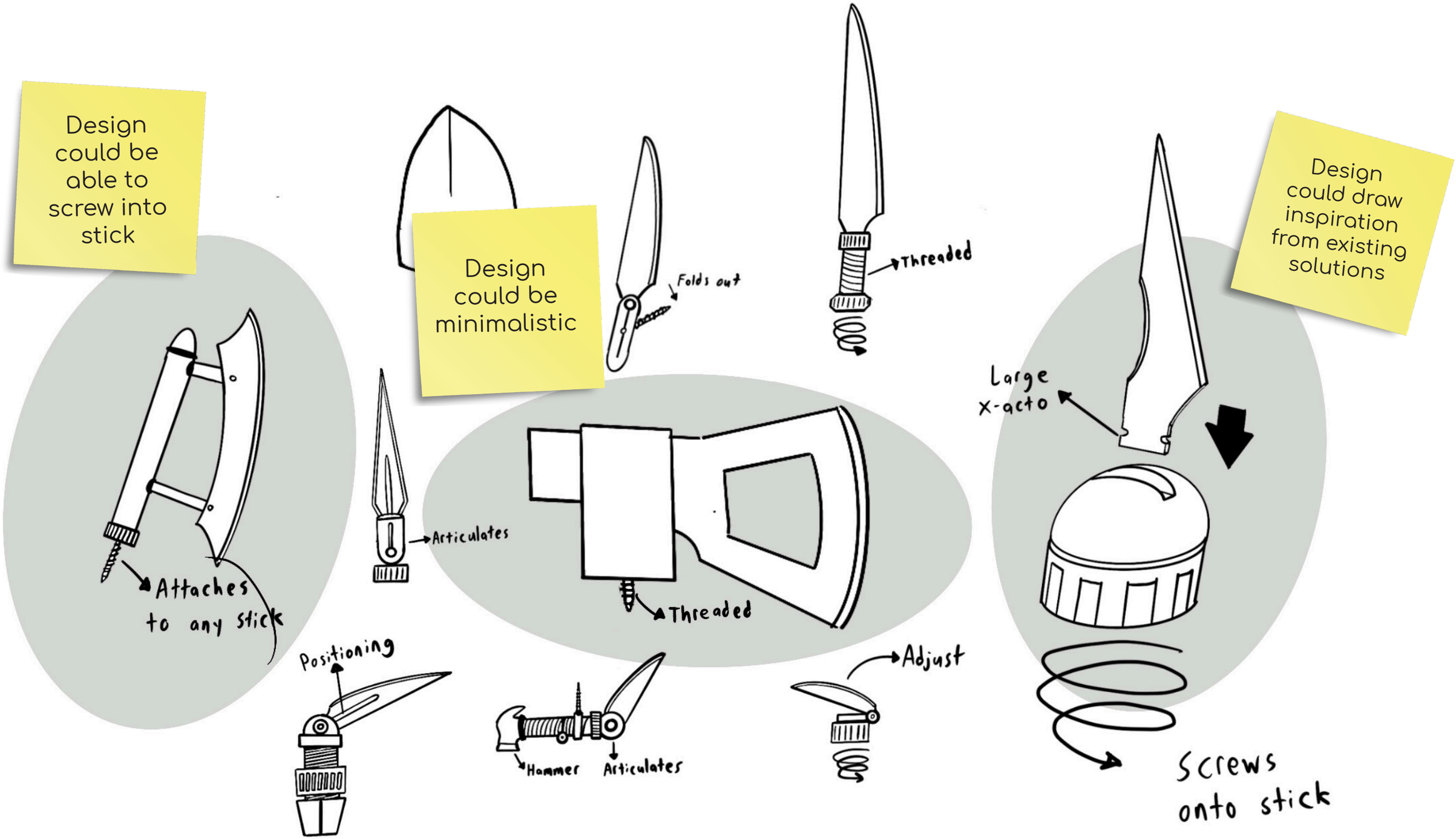
Prepared

Resourceful

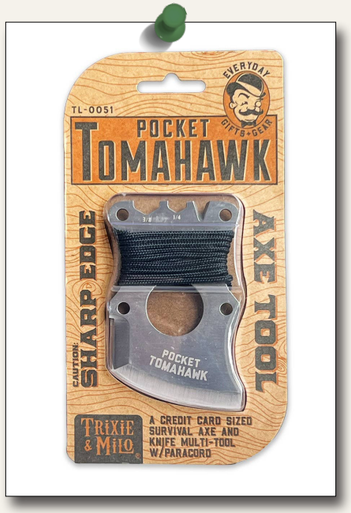


Market Summary

There are no products on the market that exist in the same place as my proposed product

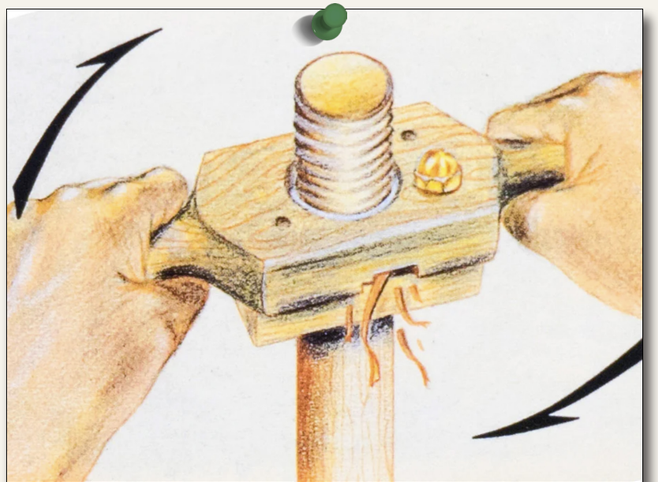

Design could be able to screw into stick
Attaches to any stick
Design could be minimalistic
Folds out
Articulates
Threaded
Positioning
Hammer
Articulates
Adjust
Design could draw inspiration from existing solutions
Large X-acto
Screws onto stick

Existing Products



Existing products are weak, niche and limited

Concept Precedents



How can these concepts be leveraged for this product?

The design of this product should be...

Functional

Design should function as intended

Versatile

Products in this area that are too **niche** often fail.

Portable

Lightweight and easily carried or transported

Marketable

Look “cool” enough to gain popularity

Unique

Offer a benefit compared to existing products

Durable

Able to withstand impacts and weathering

Better

Attach to a stick **better** than similar existing products

Affordable

Worth the price compared to existing tools

Intuitive

Not overly difficult to understand and use

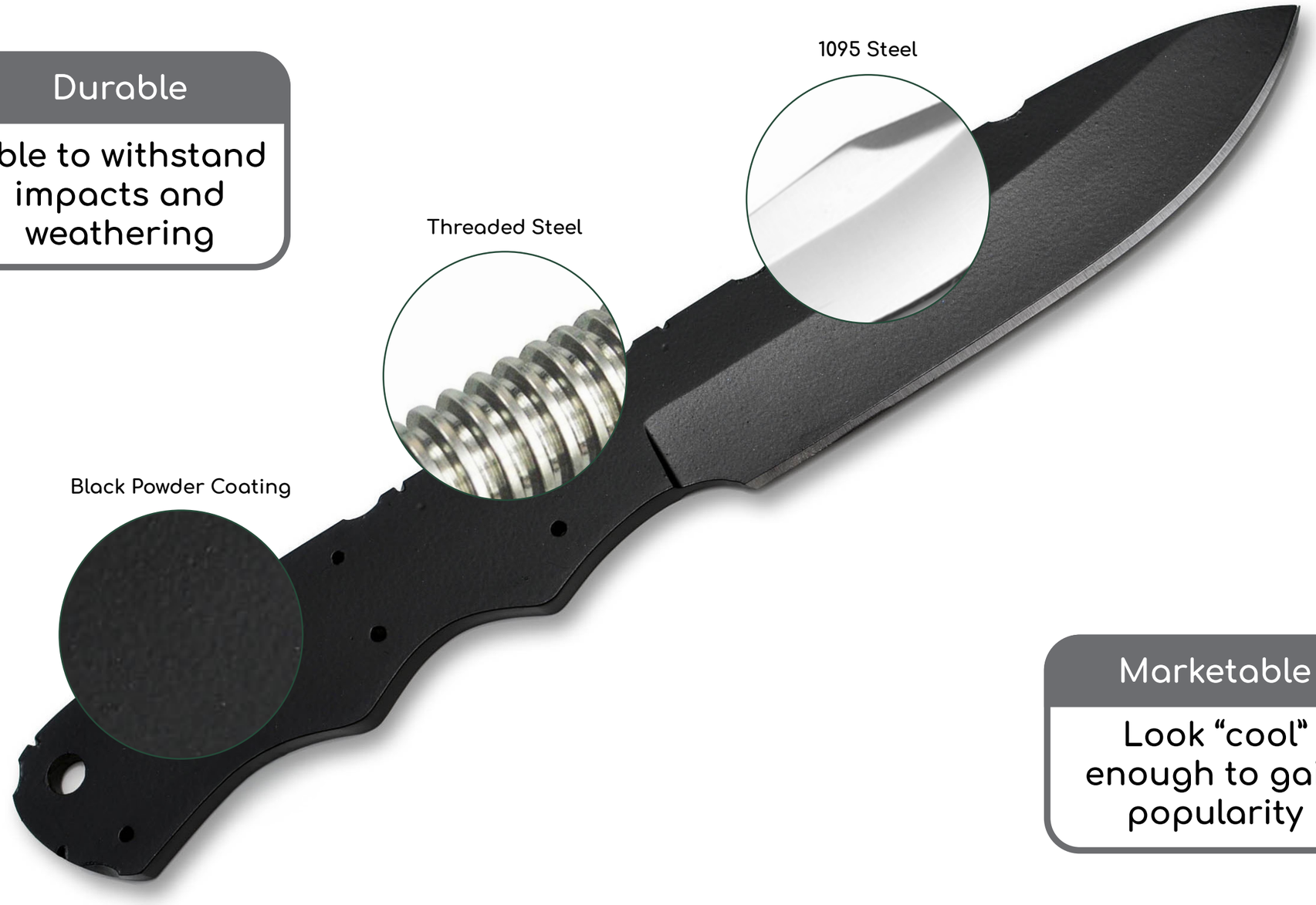
Compatible

Design should be compatible with a variety of sticks

Highlighted
CMF Related
Explained

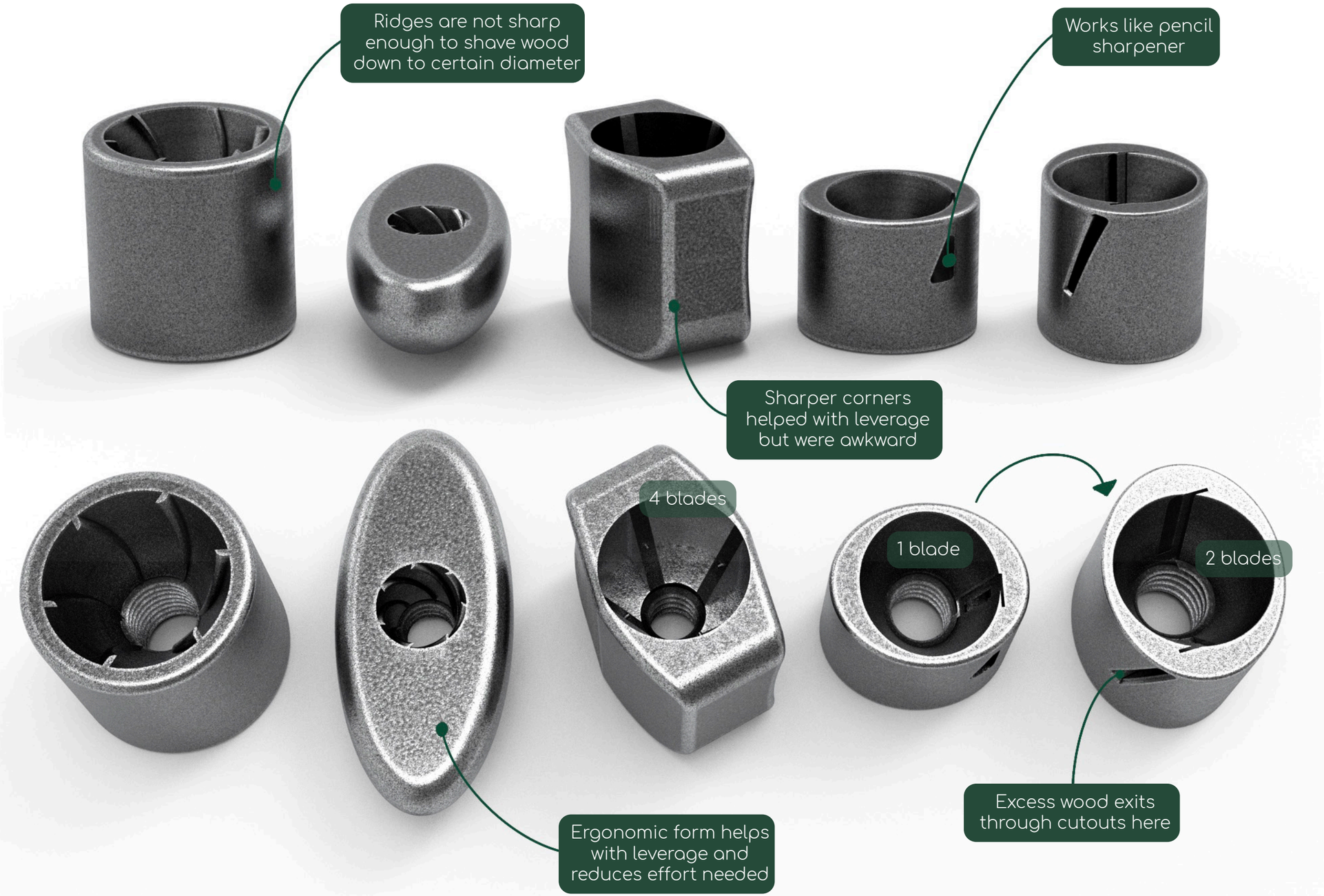
Durable

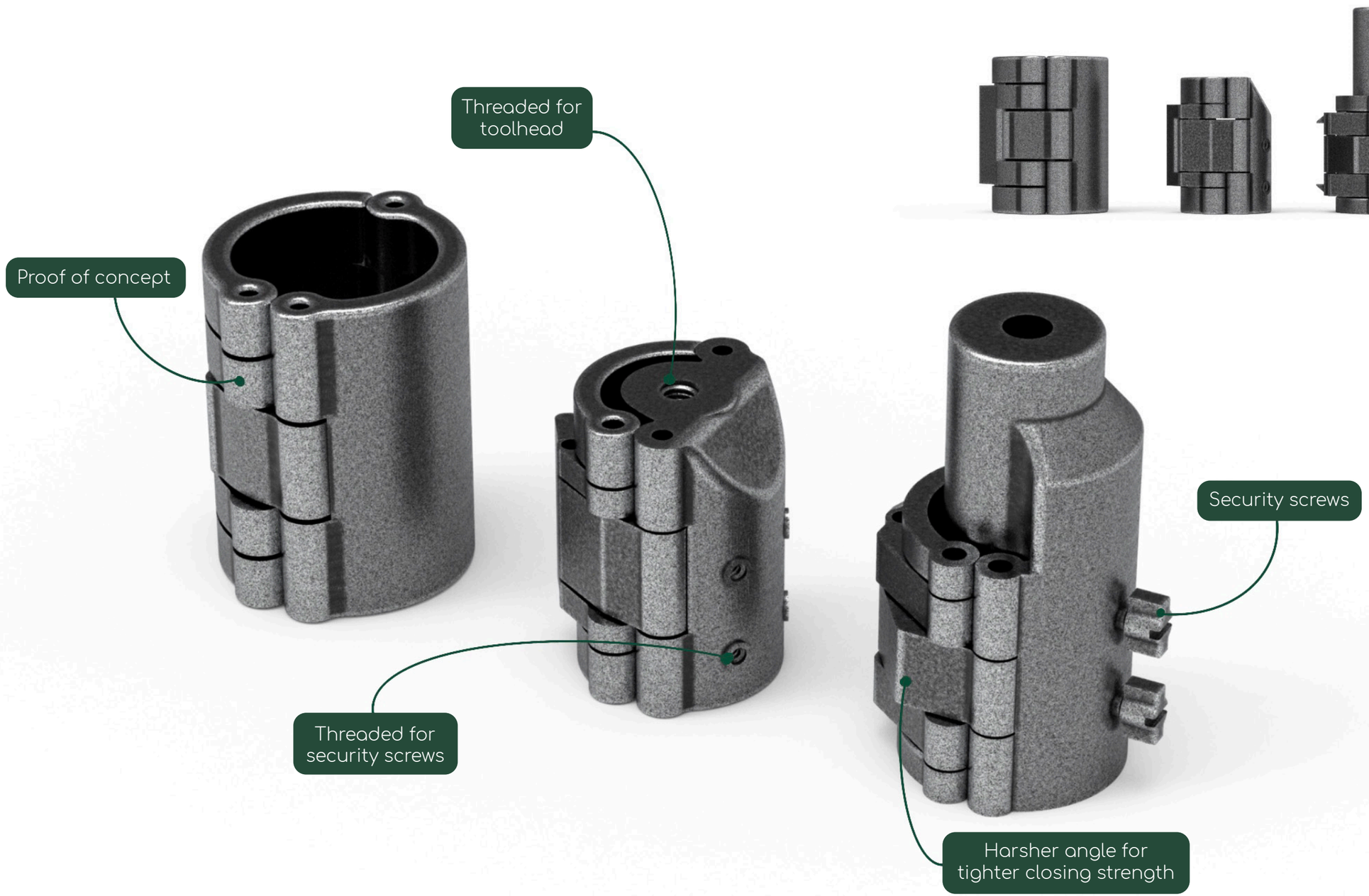
Able to withstand impacts and weathering



Marketable

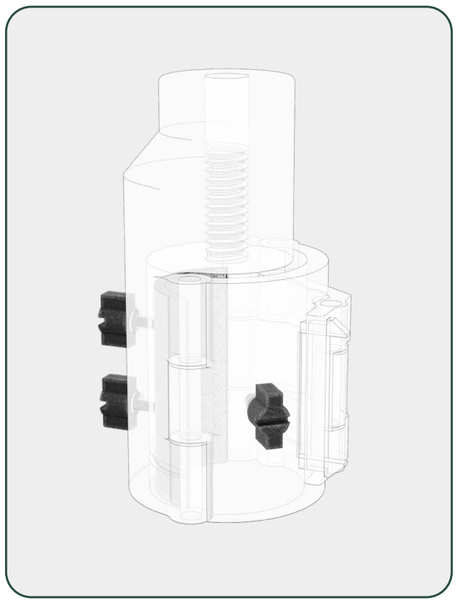
Look “cool” enough to gain popularity

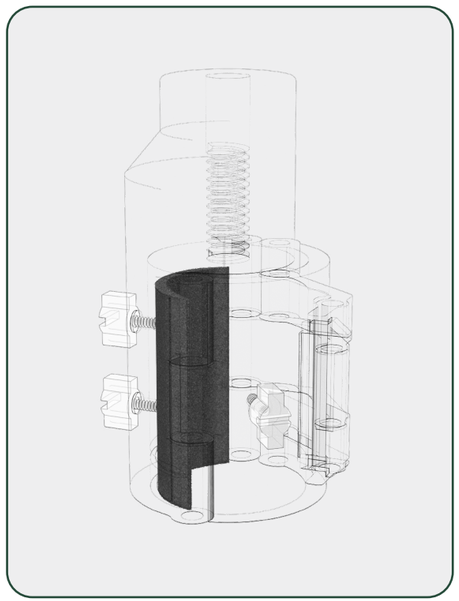

Ridges are not sharp enough to shave wood down to certain diameter
Works like pencil sharpener
Sharper corners helped with leverage but were awkward
4 blades
1 blade
2 blades
Ergonomic form helps with leverage and reduces effort needed
Excess wood exits through cutouts here

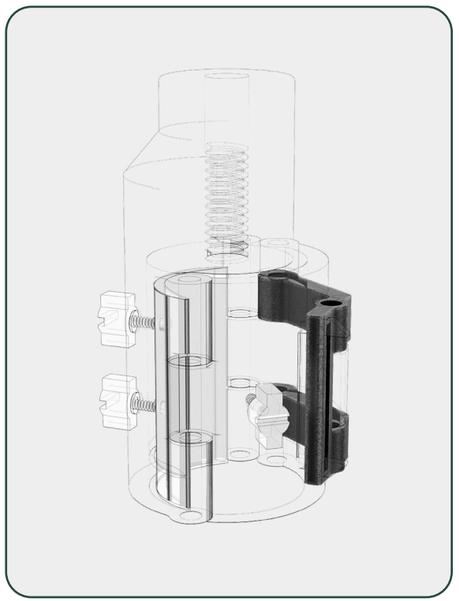

Proof of concept
Threaded for toolhead
Threaded for security screws
Security screws
Harsher angle for tighter closing strength

HAFTWORKS
Coupler

Component Overview







Security Screws

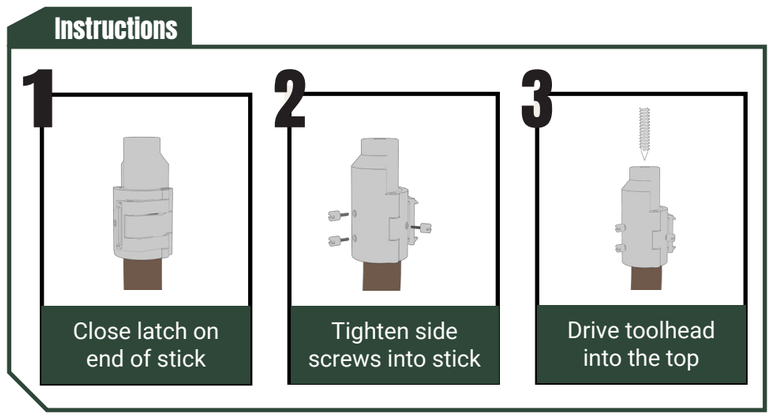
3 winged screws with flathead cutout. Tightens into stick to secure coupler in place.

EVA Foam

Foam conforms to the shape of the stick for a secure grip. Water resistant and retains shape.

Coupler Arm

Latches to body to close firmly around the stick. Applys consistent pressure so screws can be driven.


Instructions
1
Close latch on end of stick
2
Tighten side screws into stick
3
Drive toolhead into the top

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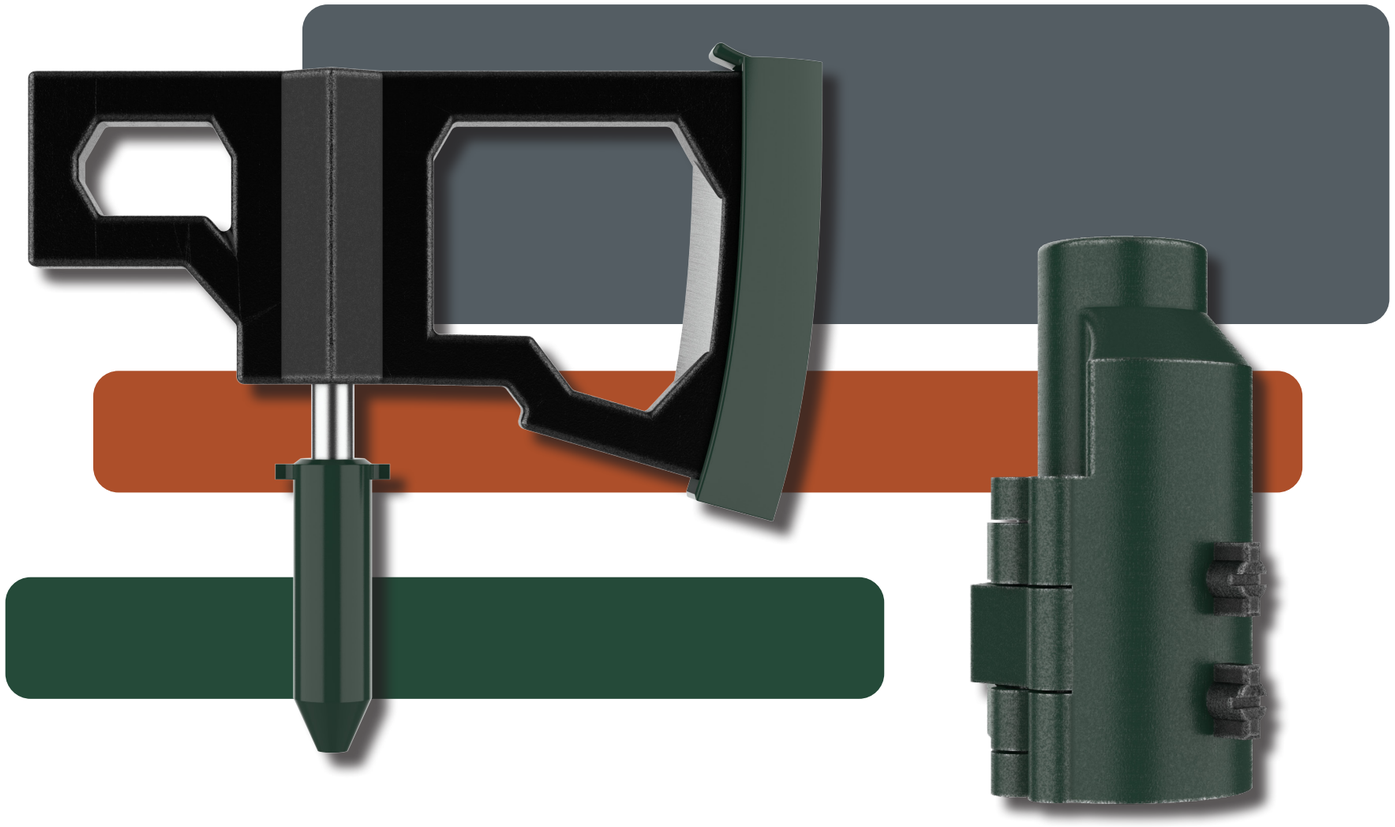
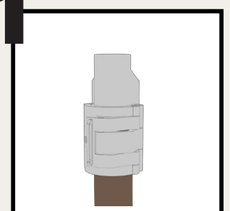
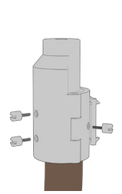


HAFTWORKS
Coupler Manual

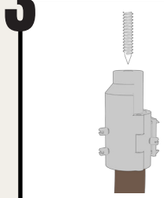
Instructions



1. Close latch on end of stick



2. Tighten side screws into stick



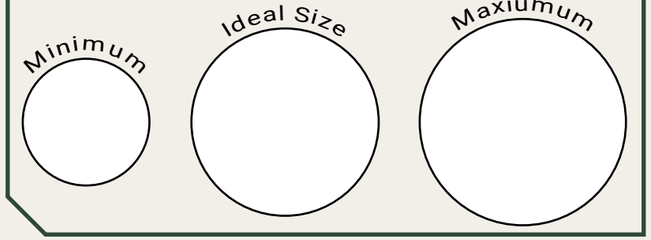
3. Drive toolhead into the top

Wood Types

Ideal Woods:

- Ash
- Beech
- Birch

Sizing



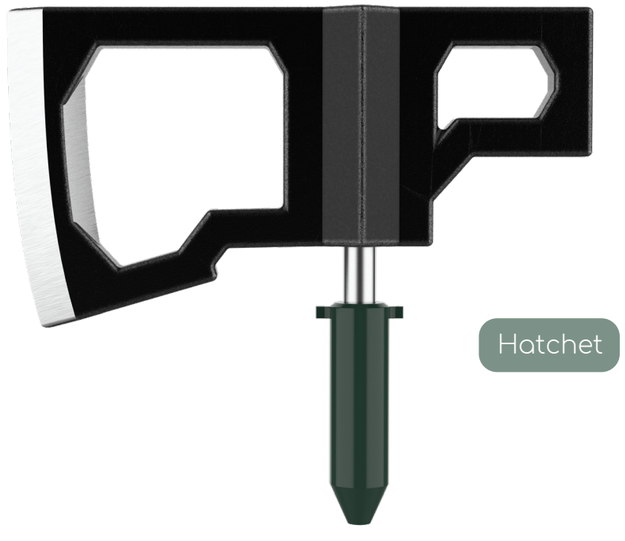
HAFTWORKS

A new solution for portable tools

Any long handled tool is now **efortlessly** portable with the haftworks coupler

Shovel

Sledgehammer



Hatchet

Axe

More coming soon

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Questions and Feedback?