

Energy Efficient Cooking Stove

Aims:

To save fuelwood use by using energy efficient cooking stove

Benefits

- **Increasing combustion efficiency;**
- **Creating a very hot fire;**
- **Eliminating smoke;**
- **Able to use small pieces of wood, branches, twigs, wood scraps**

Concepts

sticks of wood form a grate which improves the air to fuel ratio. Only the tips of the sticks are combusted

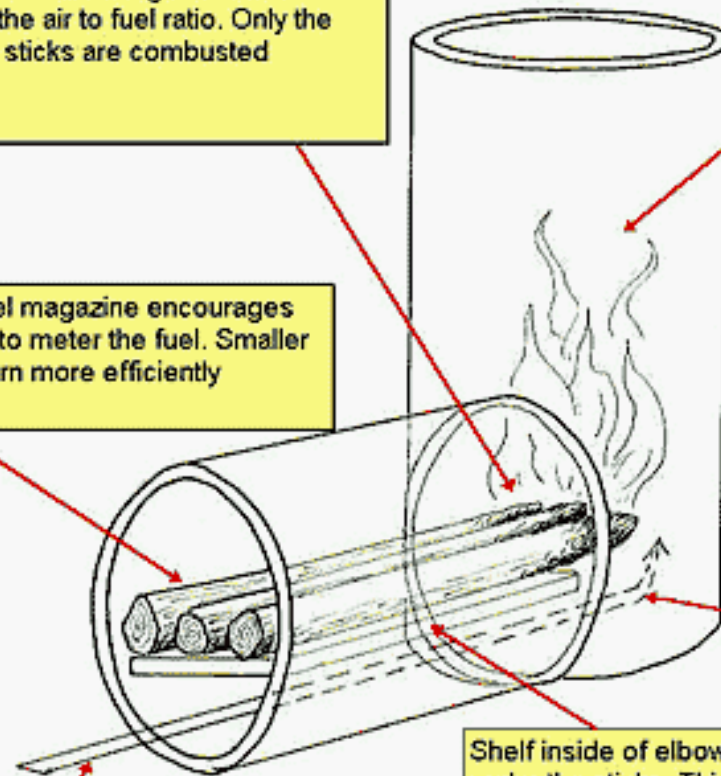
Small fuel magazine encourages the user to meter the fuel. Smaller sticks burn more efficiently

Fuel magazine helps to limit the inflow of cool air. Cool air reduces the temperature in the combustion chamber and decreases efficiency.

Rocket chimney increases draft. Smoke is drawn through flame and combusts

Air passing under the shelf is preheated .

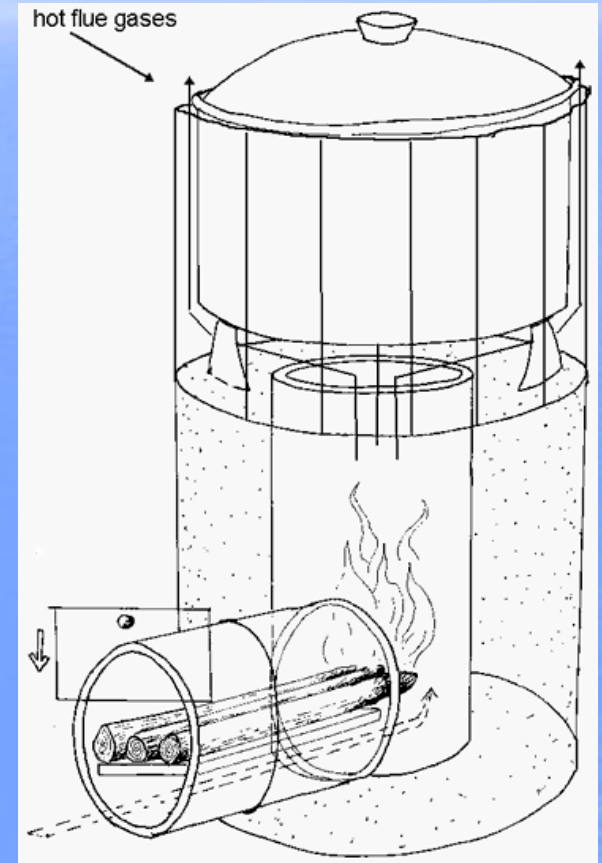
Shelf inside of elbow allows air to pass under the sticks. This ensures optimal airflow into combustion chamber



Concepts

The low-mass stove body and insulated chimney assure that the heat goes into the cooking pot, not into the stove.

The stoves used in conjunction with skirt can save large amounts of fuel



Construction of stove

Step1: Three main parts of stove

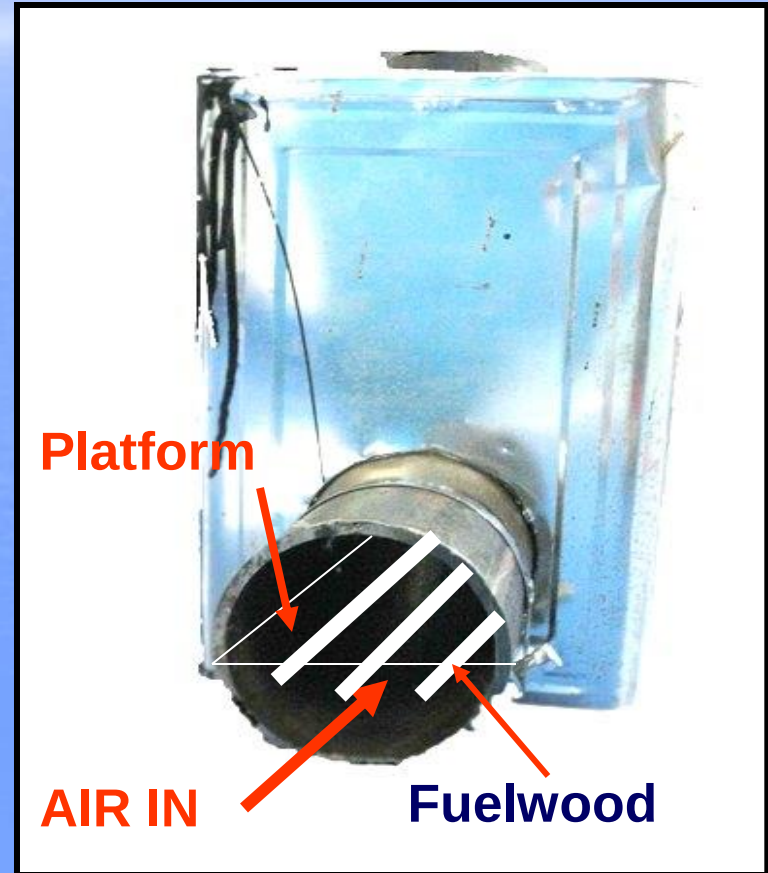
4 inches- 2 short pipes and 1 elbow



Step2: Cut the hole on lower side of the used tin box and fix the elbow pipe



**Step3: Fixing
platform where the
fuelwoods are
placed for burning**



Step 4: Burning fuel



THE END