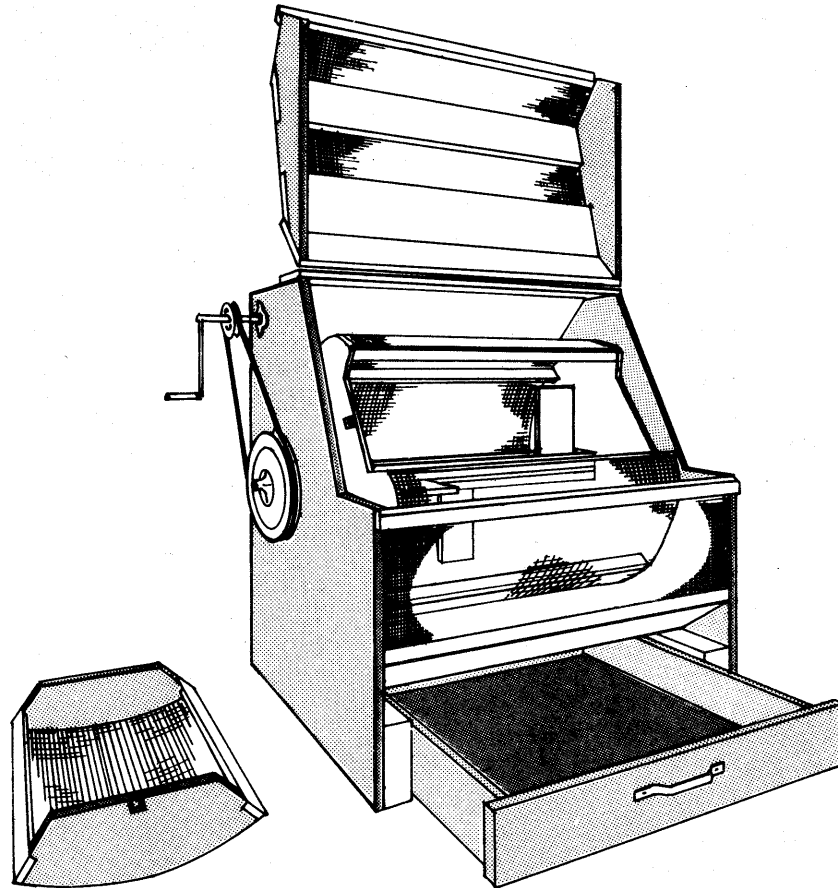




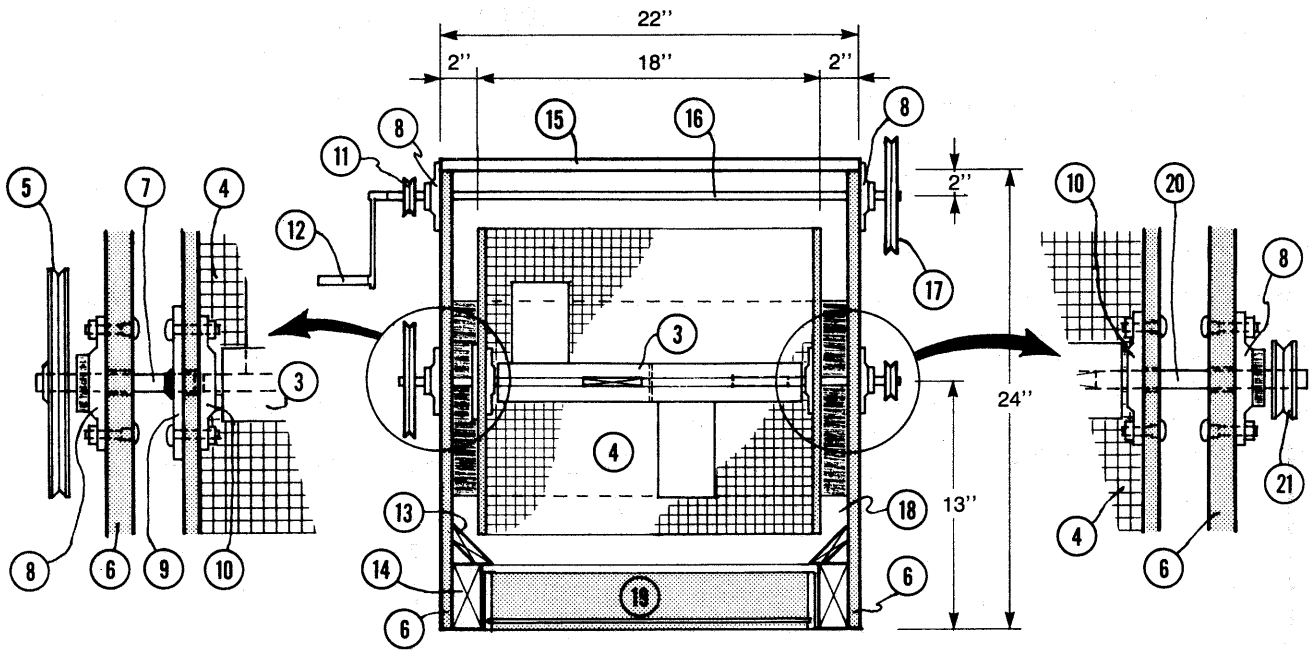
Pea Sheller



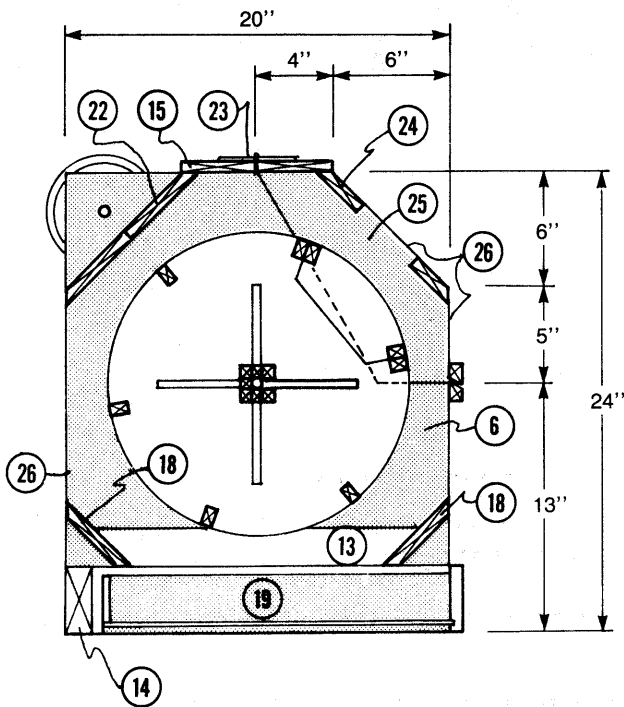
Construction

The sheller has four main parts.

- A frame with end pieces of 3/4 in. plywood and 1 in. cross members, enclosed with fly screen. One side of the frame is hinged at the top to swing open to permit loading and removal of empty pods.
- A circular drum made of 1/2 in. x 1/2 in. wire mesh on a wood frame into which the pea pods are loaded.
- A rotor on a central shaft with four smooth paddles which revolves rapidly in the same direction as the drum.
- A drawer at the bottom of the main frame to collect the shelled peas.

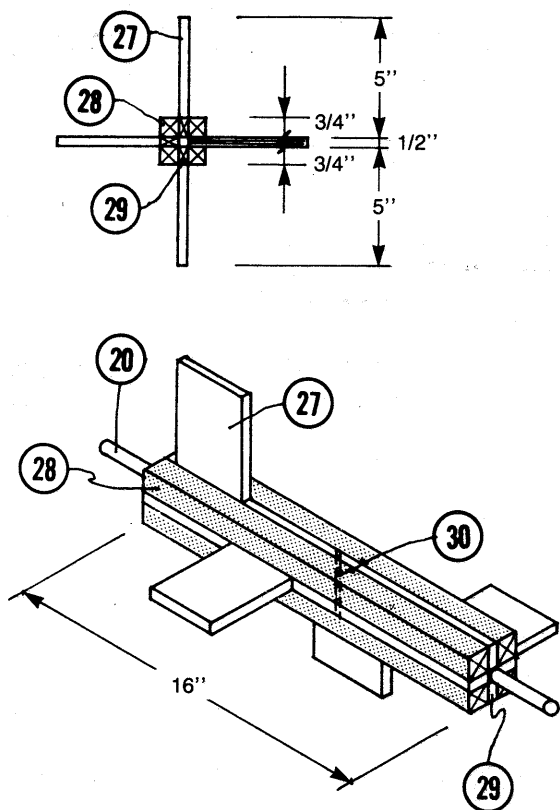


1



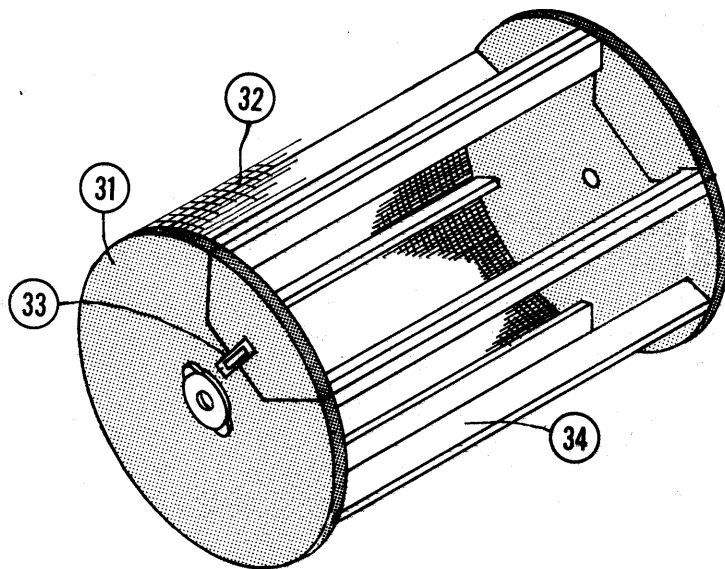
2

1. Front (section and bearing details)
2. Side (section)
3. Rotor
4. Drum
5. 6" \varnothing pulley, fasten to (7)
6. 3/4" plywood main frame sides
7. 1/2" \varnothing x 6" long shaft
8. Flange bearing w/locking collar
9. 1/4" x 1" x 4" flat; weld to (7) and bolt to left drum end
10. flange bearing
11. 2" \varnothing pulley, fasten to (16)
12. 5"-7" crank
13. 1" x 4" main framing beveled to 3" wide to create slope into drawer
14. 2" x 4" main frame base
15. 1" x 6" framing, rip to 4" wide
16. 1/2" \varnothing x 28" long shaft
17. 6" \varnothing pulley, fasten to (16)
18. 1" x 6" framing beveled to 5" wide to create slope into drawer



3

- 19. 12" W x 18" L x 3" D drawer
- 20. 1/2" ϕ x 24" long shaft
- 21. 2" ϕ pulley, fasten to (20)
- 22. 1" x 6" framing, bevel to 5" wide
- 23. 3" strap hinges
- 24. 1" x 4" framing beveled to 2 1/2"
- 25. access hatch
- 26. fly screen
- 27. 3" x 5" x 1/2" rotor paddle
- 28. 3/4" x 3/4" corners
- 29. 1/2" x 3/4" spacer
- 30. pin (secures (20) to (3))
- 31. 1/2" x 16" ϕ plywood drum ends
- 32. 1/2" x 1/2" wire mesh
- 33. clamp fastener (both sides)
- 34. 3/4" x 1" ribs (all ribs must be rounded and smooth)



4

Operation

Fresh green peas are placed in the drum through the removable drum section and hinged frame section. About 6 quarts of peas is recommended. Rotate the drum at 40 rpm or 120 rpm at the crank. Continue for about 1 minute; prolonged operation will cause the pods to break up excessively.

A simple method to separate the peas from broken pods is to pour the drawer contents on a blanket placed at an angle. The peas will roll down the blanket while the pods will not.