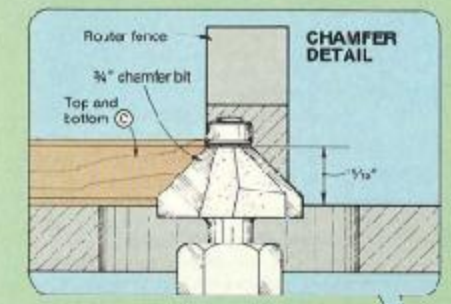
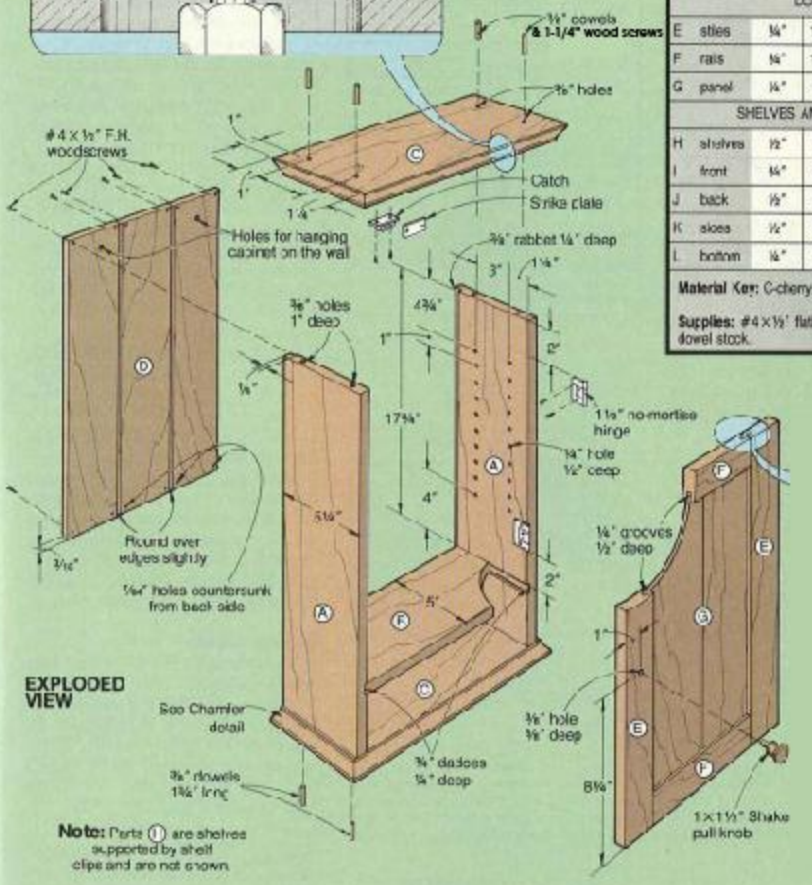
ON THE WALL





Bill of Materials

Part		Finished Size T	W	L	Matl.	Qty.
CABINET						
A	sides	¾"	5¼"	22"	C	2
B	shelf	¾"	5"	12"	C	1
C	top and bottom	¾"	5⅝"	14¼"	C	2
D	back	¼"	4½"	22⅜"	P	1
DOOR						
E	stiles	¾"	1⅝"	17⅜"	C	2
F	rails	¾"	1⅝"	7½"	C	2
G	panel	¼"	6⅛"	14⅛"	P	1
SHELVES AND DRAWER						
H	shelves	½"	4⅞"	11¼"	C	2
I	front	¾"	3¾"	11¼"	C	1
J	back	½"	3⅜"	10⅞"	C	1
K	sides	½"	3⅜"	4⅝"	C	2
L	bottom	½"	4⅛"	10⅞"	P	1

Material Key: C-cherry, **P-Plywood** cherry

Supplies: #4 x ½" flathead wood screws, ⅜" dowel stock.

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Mrs. K. Richardson

Construction 20 Wall Cabinet

Please use these instructions in conjunction with your exploded drawings from your original cabinet plans. These instructions will work better for us in our shop versus what your plans call for. Also adjustments have been made over time to make it easier for students versus what the original plans called for.

Instructions:

1. Once you have your pieces A-C rough-to-ready you are ready to start your joinery and profiling of your cabinet. **DO NOT MOVE ON** to any other piece of your cabinet until later.

2. Lay out your pieces as how it should be put together. Make sure to mark your sides (Right/Left) and (Front/Back). This is so that you don't confuse yourself later and make two of the same sides when cutting your joinery.

HAVE YOUR INSTRUCTOR CHECK YOUR PROGRESS

3. Mark your dado on the edge of your cabinet sides 17 ¾" from the top of your sides. Make sure to use the table saw to cut a ¾" dado below 17 ¾", ¼" deep.

4. Using the dado blades, rabbet the back edge of the sides ¼" deep, ¼" in from the back edge.

5. Router your top and bottom with a chamfer bit on the router table. There should be a ⅛" relieve at the top of the profile. Only router two ends and **ONE** edge.

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6. Mark your top two holes on your sides of your adjustable shelf holes. Make sure they are square and using a 7mm drill bit, (found in the drill bit container in the hand tools cupboard, ask Ms. Johnson for help) drill your 4 holes only and drill them ½" deep.

7. Using the adjustable shelf holes jig, drill your holes using the 7mm drill bit and jig. Make sure to stop 4" up from the dado on your sides.

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8. Mark your top and bottom piece for a start stop router on the back edge. Using your side pieces that have been rabbeted, line one up against the bottom or top piece routered inside end and mark a line that you will then transfer to the flat side of your top and bottom pieces. This will allow you to know when to start and stop your router.

9. To set up the router, you will need to use a straight ¼" router bit. Set the height low, 1/16" up from the table. Set your fence to the edge of either side of the router bit so that you know where the bit starts and stops. Slowly make the cut ¼" after at least three passes.

10. Using a chisel, square up your corners. You need to clamp your pieces to the table to ensure you chisel safely.

11. Mark your screw holes on your top and bottom according to your cabinet diagram.

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12. Dry fit using bessy clamps with it laying right side up on your table. Start by clamping your shelf into place just enough to hold but not too snug. Leave room for some movement at this point. Clamp the top and bottom to your cabinet with your clamps on following the sides of your cabinet, **NOT** in front.

13. Flip your cabinet around. Measure your inside width. Your reference point should be your shelf. From top to bottom your width should be the same from top to bottom. Using a rubber mallet, tap your sides to make the adjustment.

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14. While your cabinet is clamped together, measure your back to make a back panel to fit your cabinet. Do not just take the measurements from your plans as your cabinet may not follow specifications of the project plans at this point.

15. If all is squared up and inline, use a 7/64" drill bit with a cordless drill to drill your screw holes on your top and bottom pieces. All must still be clamped together. Drill in 1-½" deep.

16. Disassemble and move to the drill press to drill a ⅜" countersink ⅜" deep over the screw holes you have just drilled on your top and bottom pieces. Use your depth gauge on your drill press to ensure you don't drill through your pieces.

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17. Sand all your pieces from 80 grit to 120. Do not sand anywhere you have a joint as it will not make it a tight joint in the end.

18. You are ready to glue your project together. Set up your gluing boards on the table, get your glue, bessy clamps and 8- #8 1-¼" wood screws.

19. Prescrew your screws into your top and bottom so that they stick out 1/16” from the stock before you start gluing.

20. Follow the gluing instructions/demo that was done in class for you. You will need to work quickly. Start with gluing in your shelf and clamp. Then put glue on the ends of your sides and clamp your top and bottom onto the sides while lining up your screws with your holes. Once the clamps are secure, drive your screws in carefully with an impact driver.

21. Make your stretcher to fit the inside of your cabinet. It will be pocket screwed into the cabinet at the top. This will be the support needed to attach your cabinet to the wall. Your pocket holes will be located on either end of your stretcher. Line up the stretcher to the rabbet and the top of your piece.Using Kreg screws, clamp your stretcher to your cabinet and screw the stretcher in with the screws facing the back.

22. Flip your cabinet over and glue and pin nail your back onto your cabinet before your glue sets on your cabinet.

23. Cap your screw holes with ⅜” wood plugs. If you’ve used birch, you can use the birch dowels cut down to fit. If you’ve used any other material, ask your instructor for help to create plugs that match.

HAVE YOUR INSTRUCTOR CHECK YOUR PROGRESS

24. Make your adjustable shelf to fit ⅛” shorter to the inside opening of your cabinet and ¾” narrower than the inside width of your cabinet.

Drawer:

25. To make your drawer, you will need to figure the size of your pieces for your drawer based on the size of your drawer opening. (Not every student has followed the project plans perfectly and it’s best to build it to suit your cabinet). Your width and length will be ⅛” overall smaller than your drawer opening.
    a. Measure your opening height and take away ⅛” off which will be your width for all pieces
    b. Measure the length of your drawer opening and take away ⅛” off which will be the length of your front.
    c. Your back piece is ½” shorter than your front.
    d. Measure the depth of your drawer opening and subtract ½” which will be the length of your side pieces.

Part	# pieces	T	W	L
Front	1	¾”		
Back	1	½”		
sides	2	½”		

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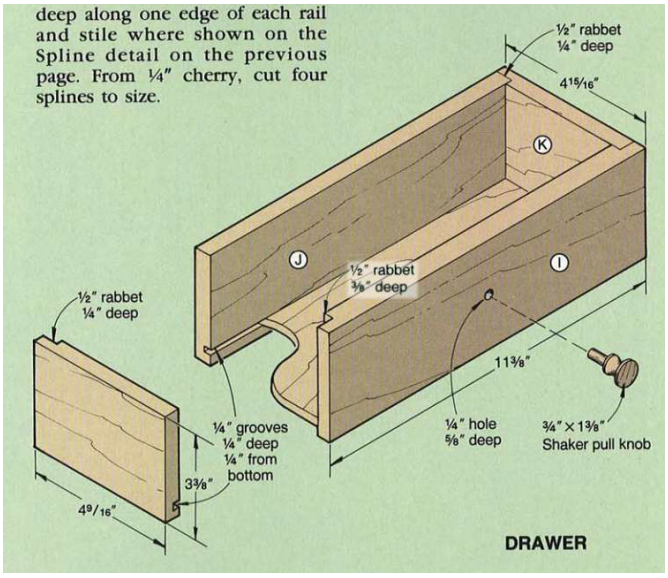
26. Complete your drawer joinery according to the drawings.



27. Once your drawer joinery has been completed, make your bottom panel for your drawer. The length of your panel will match the length of your back piece of your drawer and the width of your panel will be ¼” narrower than your side.

28. Drill your drawer pull hole before assembling your drawer centered on the front drawer piece. Use a 11/64” drill bit and the drill press.

29. Sand all your pieces prior to assembling your drawer.

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30. Glue and pin nail your drawer together. You will get your drawer knob at the end of the project build, after your finish has been applied. Do not glue your bottom panel into place. It should free float inside.

Door:

31. Start planning your door. Again measure your door opening to create a door that will your door opening.
    a. To measure the length of your styles, measure the height of your door opening. This measurement is the length of your styles.
    b. To measure the length of your rails, measure the width of your door opening and subtract the 3-⅜".

Part	# pieces	T	W	L
Styles	2	¾"	2"	
Rails	2	¾"	2"	

32. Rough to ready your styles and rails. Your rails will look too long right now but once routered, they will fit properly if you've followed the instructions correctly.

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33. Using the router table and the cabinet door router bits, router out your pieces with the assistance of your instructor.

34. Check the styles and rails fit together inside the cabinet opening. It should fit tight now.

35. To measure the door panel, assemble your styles and rails and measure the inside opening. The length of your panel will be ⅝" longer and wider than the inside door opening.

36. Sand every piece prior to gluing. Remove all burn marks and other imperfections.

37. When gluing, glue flat and glue only the end of the rails to the styles. Allow the panel to free float inside. Use tape as your clamps. No clamps needed.

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38. Once the glue has set, drill your door knob hole with an 11/64" drill bit and drill press.

39. Check your project over for any pin holes to fill with wood filler.

40. Sand your entire project. Get your project ready for finishing.

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41. When finishing your project, take your time to apply the stain or clear coat appropriately. This process will take several days to complete properly. One coat per day. Discuss your plans with your instructor to choose appropriate steps.

42. Attach all your hardware.

43. Put your name on some tape and attach it to your project. Hand your project into your instructor for assessment.

Wall Cabinet Cut List
CON 20

Part	T	W	L	# pieces	Material
sides	¾”	5 ¼”	22”	2	birch
shelf	¾”	5”	12”	1	birch
top/bottom	¾”	5 ⅞”	14 ¼”	2	birch
stretcher	¾”	3”	11 ½”	1	birch
Back panel	¼”	12”	21”	1	Birch plywood
Door styles	¾”	2”	17 ⅝”	2	birch
Door rails	¾”	2”	8 ⅛”	2	birch
Door panel	¼”	8 ¾”	16 ⅞”	1	Birch plywood
Adjustable shelf	½”	4 ⅛”	11 ⅜”	1	birch
Drawer front	¾”	3 ⅜”	11 ⅜”	1	birch
Drawer back	½”	3 ⅜”	10 ⅞”	1	birch
Drawer sides	½”	3 ⅜”	4 ½”	2	birch
Drawer bottom	¼”	4 ⅛”	10 ⅞”	1	Birch plywood

**** All drawer and door measurements should be remeasured to the specs of your cabinet.*

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