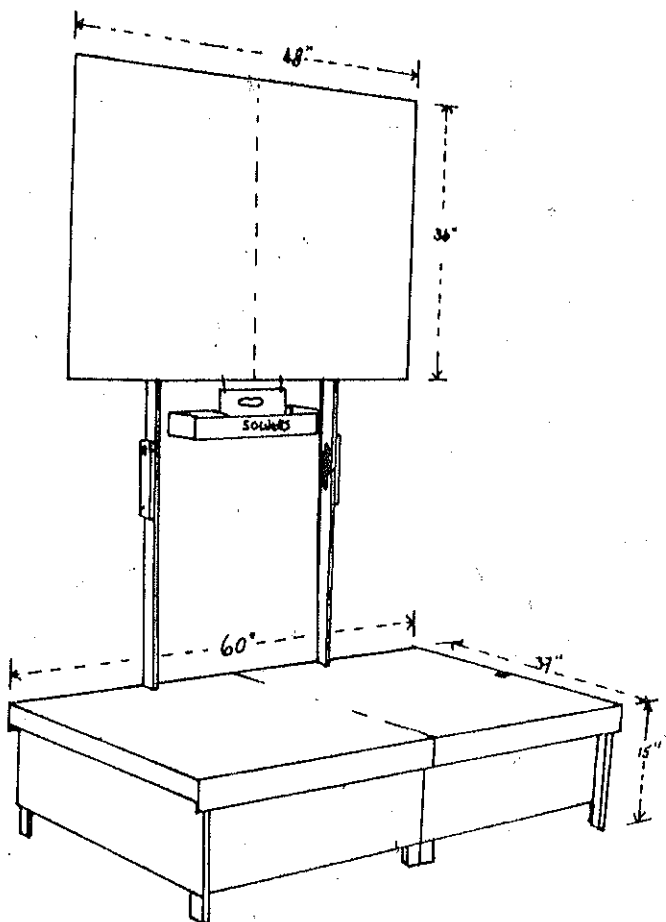




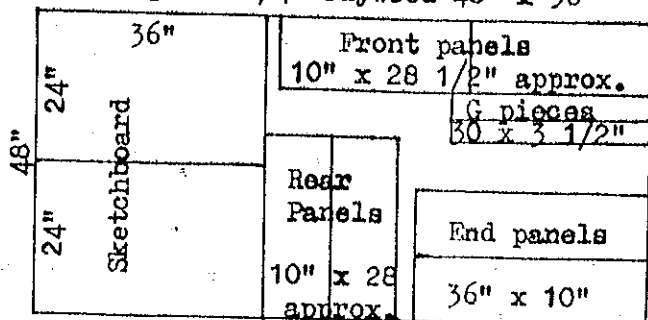
# SOWERS PROGRAM

PHILIPPINES

## HOW TO BUILD A SOWERS PLATFORM.



### Cutting the 1/4" Plywood 48" x 96"



Dia. 1.

### MATERIALS:

#### Wood

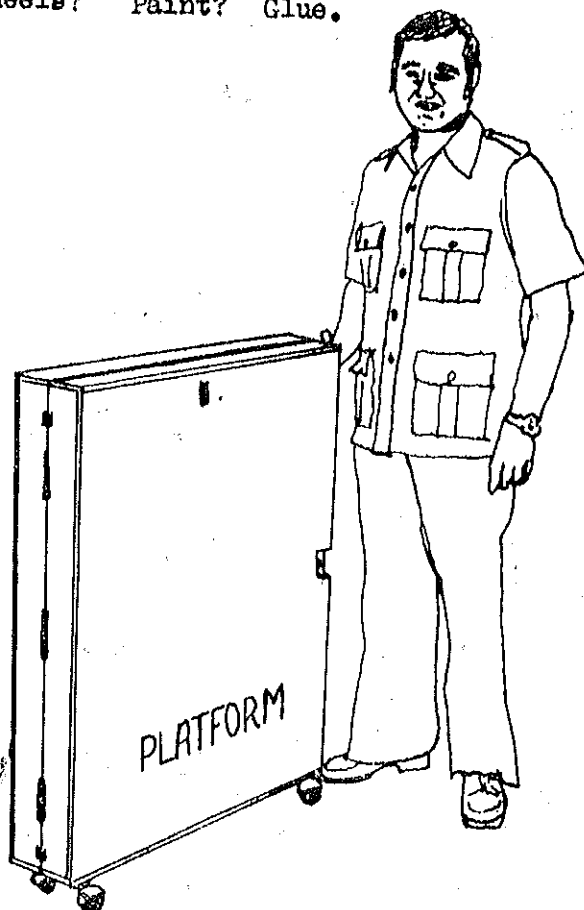
- 1 piece 1/4" plywood 4' x 8'
- 1 piece 1/2" plywood 3' x 6'
- 6 feet of 3" x 2"
- 12 feet of 2" x 2"
- 40 feet of 2" x 1"

#### Hinges (with screws)

- 3 pieces 2" x 1"
- 3 pieces 3 1/2" x 2"
- 8 pieces 3" x 2"
- 6 pieces 4" x 4 1/4" strap hinges
- 2 sets 3 1/2" x 3 1/2" loose pin hinges (or smaller).

#### Screws etc.

- 4 pieces 3/16" stove bolts with wingnuts.
- 1 carriage bolt 6" x 3/8" and wingnut.
- Screws: 1 1/2", 1" & 3/4"
- 2 pieces sliding latch
- 18" small chain.
- Wheels? Paint? Glue.



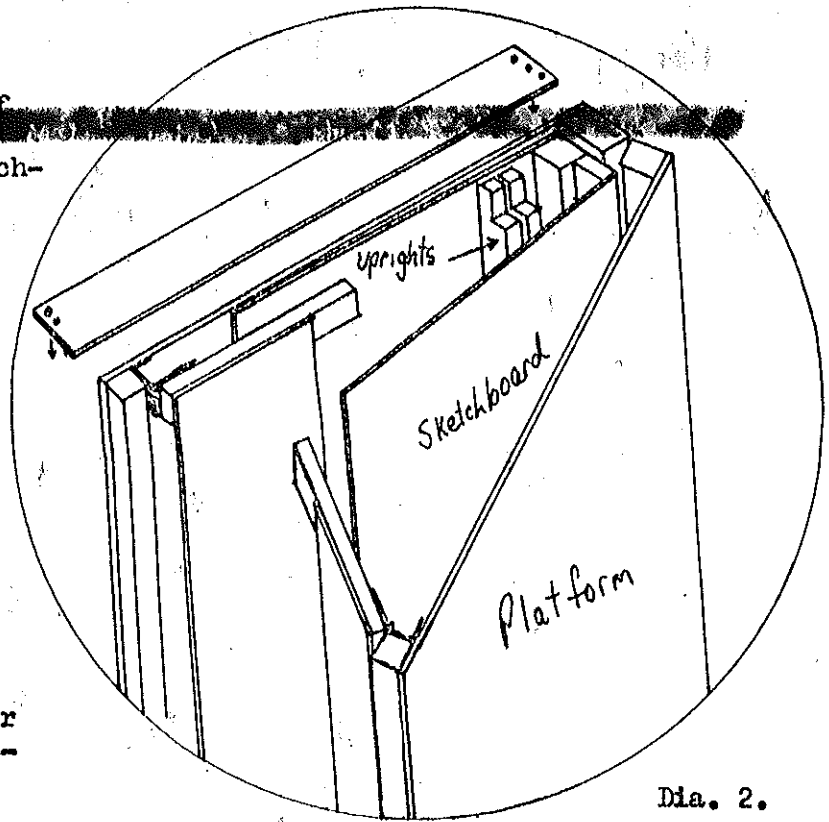
HOW TO MAKE A FOLDING SOWERS PLATFORM.

An drawn on the front page, the base of  
~~the platform is 37" x 30" by 7" by 7".~~  
 This provides a firm base for the sketch-  
 board which is 4" x 3". The sketch-  
 board lifts up off the uprights and  
 folds in half. The uprights also  
 lift up out of the base, and also  
 fold. The base itself folds too.

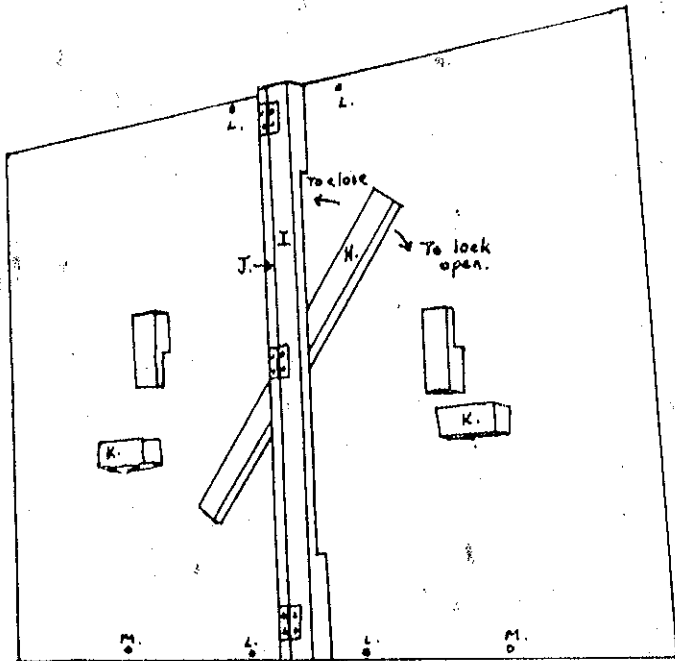
Dia. 2 shows how it all folds to-  
 gether, into a box measuring 37"  
 x 30" by 7". It is of sturdy  
 construction, and weighs approx.  
 35 kilos. With wheels under it,  
 one man can easily move and erect  
 it.

The wood sizes given (3" x 2", 2" x  
 1" etc.) are approximate. After  
 planing, the wood could be much smaller  
 and this is O.K; it will make the plat-  
 form lighter, but will still be quite  
 strong enough.

All joins should be glued and screwed.



Dia. 2.



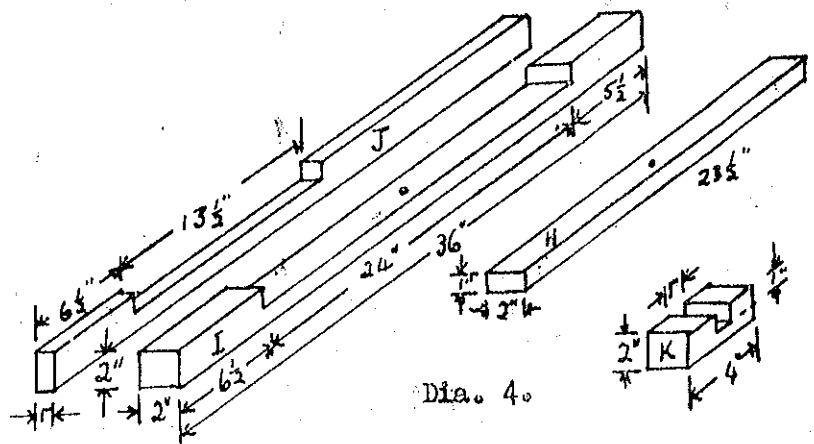
Dia. 3.

The L holes (1/4") are for the SOWERS  
 paint box. The M holes are for hang-  
 ing the board by C-shaped hooks on to  
 a ledge etc. from the top.

THE SKETCHBOARD.

Three 2" x 1" hinges attached to I & J  
 allow it to fold in half. The lock  
 (H) turns on a screw inserted through  
 the front of the board and screwed into  
 I. Note that J is cut differently  
 to I.

The two K pieces hold the board onto  
 the uprights. The centres of the K  
 pieces are both 13" in from the centre  
 join. But they are 13 3/4" from the  
 bottom and 22 1/4" from the top. This  
 allows you to invert the board and change  
 its height for short or tall men. The  
 difference is 7".



Dia. 4.

Dia. 5.

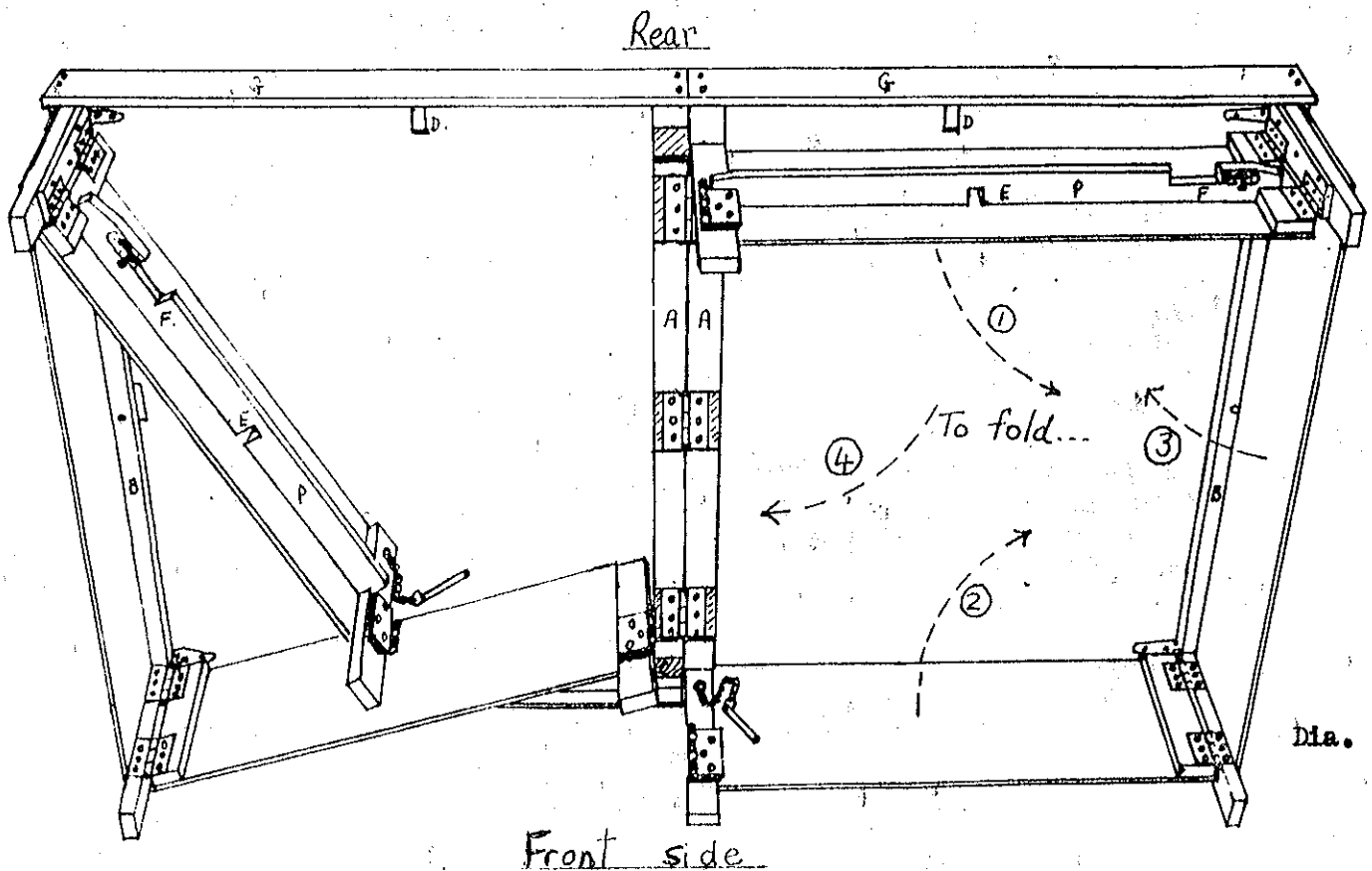
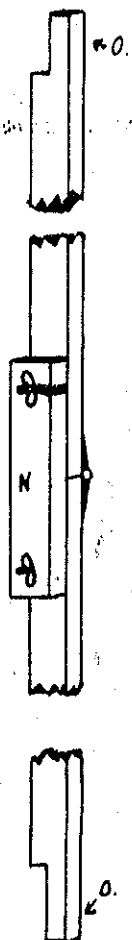
**THE UPRIGHTS.**

Make the uprights from 4 pieces of 2" x 1" x 36". At one end of each piece cut a step so that the part marked "O" is 1" x 1" and 3" long. Make sure it fits neatly through the K piece on the sketchboard.

Join the two parts of each upright with a 4" x 1 1/4" strap hinge. The N pieces are 2" x 1" x 9". Cut a slot to the hole on one end, so that it can quickly slide under the wingnut. Use 2 1/2" x 3/16" stove bolts and wingnuts. (It is good to flatten the end of the screw so the wingnut can't fall off.)

**THE PLATFORM BASE.**

1. Cut the 1/2" plywood so that you have two pieces each measuring 30" x 36".
2. The two centre pieces (A) are 3" x 2" x 36". Place the 3 1/2" x 2" hinges on the narrower 2" edge. Allow 4" from each end of the A pieces. Inset the hinges about 1/8" so that there will be no gap when the two A pieces are folded together. This part needs to be done very carefully so that you won't have any problems later when you attach the plywood (don't do it now).
3. The B pieces are 2" x 2" x 36". These can be glued and screwed to the 1/2" plywood top (screws go in from the plywood side).
4. Cut the four corner legs (2" x 1") so that the overall height of the platform will be 15". Now cut out the plywood end panels (36" x 10") and glue and screw them to the legs (see Dia 7).



Dia. 6.

5. Notice in Dia. 7 how the 4" x 1 1/4" strap hinges are screwed to the legs and the base. Bend each hinge carefully so that the overall width of the folded platform at this end will be the same as at the other. This will depend on how you bend the hinges. The other thing to remember is that when the hinges are screwed on to the legs, the weight of the platform is on the legs, not the hinges.

(By the way, the ends are placed like this so that there is room for the front and rear panels to fold underneath, and there is still more room to fit the sketch-board in also - see Dia 2 again.)

6. The front and rear panels are joined to the end panels with 3" x 2" hinges (you will find it easier to proceed if you remove the end panels from the base in the meantime).

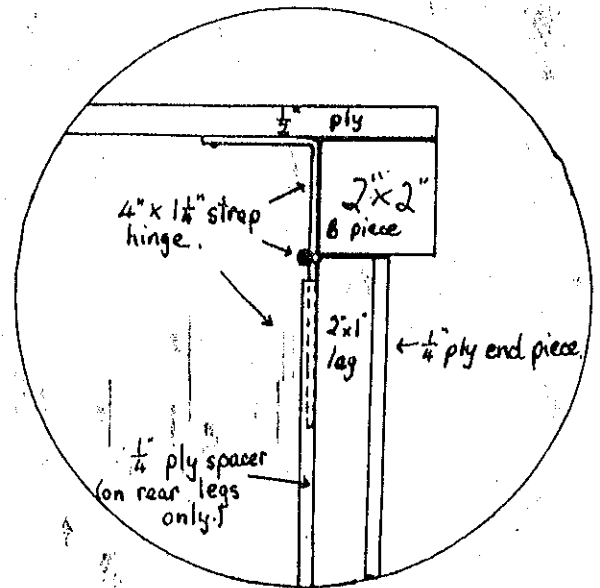
Do the rear panel first, and notice the 1/4" plywood spacer (Dia 7). Remove a layer of plywood where it goes over the hinge.

See Dia 8 to see how the A pieces are chiselled. One slot is wider than the other. This is necessary to allow the loose pin hinge to mesh properly. Notice also that a 1/2" step is cut in the plywood panel at the centre (do this on all four panels at the centre). Cut all the 2" x 1" centre legs so that the overall height of the platform is 15".

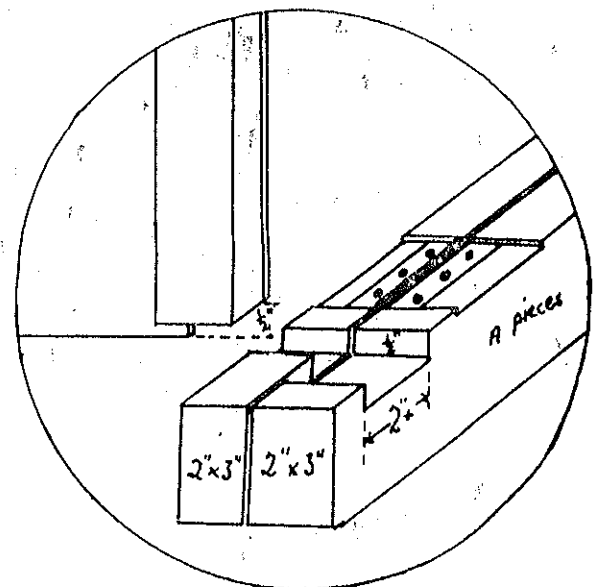
(By now you will need to screw the two 1/2" plywood squares on to the A pieces. Make sure that these are perfectly flat and level while you are fitting the rear and front panels, or else you will have problems when they come together at the loose pin hinges.)

The front panels are hinged differently (see dia 6) and need no spacer. They join in the centre in the same way with a 1/2" step out in the plywood, and a 1/2" slot in the A pieces.

7. Now make the Ppieces to fit the rear panels (see dias 6 & 10). The centres of holes D & E are 13" from the middle join. E is approx 1" x 1" to fit the O end of the uprights. D is make to fit the upright size, and is approx. 1/2" from the edge. Do E first. Don't forget to cut out the slot at F so there is space for the centre leg of the front panel, when it is folded up.

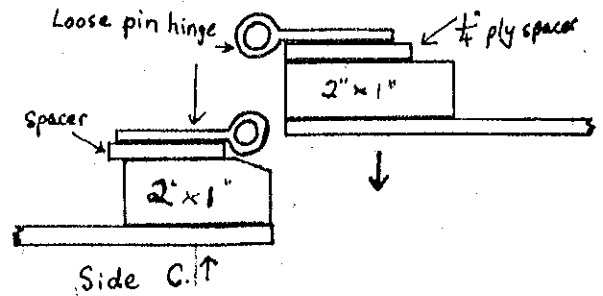


Dia. 7.



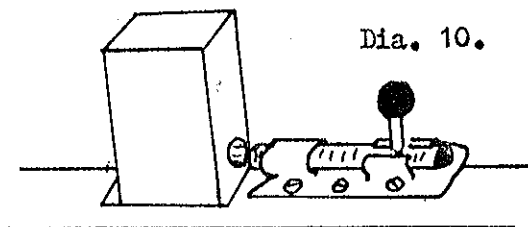
Dia. 8.

8. You can now screw on the loose pin hinges. Notice how there is a plywood spacer, and that one side overhangs the other. Side C (see dia. 9) is the side that fits into the narrower slot in the A piece. You can cut off the head of the pin and drill a hole through the pin to attach it to the chain. The other end of the chain can be attached to a leg. This will prevent it from becoming lost.



Dia. 9.

9. Sliding latches (dia. 10) are fitted to hold the front sides in position when the platform is being folded up. Drill a hole into the side of the 2" x 1" leg to accommodate the pin of the latch.



Dia. 10.

10. Cover pieces (G) in Dia. 6 should be made from 1/2" for the bottom (front) side, and 1/4" for the top from the left-over plywood.

11. One 6" carriage bolt with a wingnut can hold the platform closed. Cut away the 1/2" plywood for the wingnut, and inset the top of the carriage bolt so that it doesn't protrude on either side.

12. Heavy duty castor wheels screwed to the bottom (front) corners makes the platform easy to move about, but only on good smooth surfaces.

Bigger wheels (fitted to a separate piece of wood) are needed for a rougher surface.

