

PN184 Factory Entrance & Boiler House

READ THROUGH ALL THE INSTRUCTIONS BEFORE YOU START

To construct this kit you will need the following:

1. A modellers knife. and a pair of sharp scissors.
2. A steel ruler.
3. Glue - See *best glues in next column*.
4. Ultra Fine Tip Glue Applicator, see *right*.
5. A cutting surface - a sheet of card or cutting mat.
6. Fine point tweezers to hold smaller components.
7. Water colour paints and a very fine brush for painting edges and corners.

GETTING STARTED

1 EXTRACTING COMPONENTS FROM SHEETS.

To stop the components from falling off the sheets, they are held secure with scorelines. These are cuts that only go about 75% of the way through the card. To release them run the point of your knife along these scorelines and they will come seamlessly away. These scorelines are marked with blue arrows: **WARNING**, Cut with care using a knife that is not too sharp, this will reduce the risk of the blade running out of the score and cutting into the kit components.

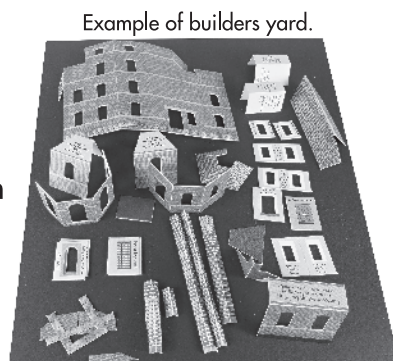
2 MAKE YOUR 'BUILDERS YARD'.

As you extract the components from the base sheets they need to be kept away from your working area on a thick piece of card or a tray until needed. With this kit you only need to extract the components as needed and instructed from here on.

There are a lot of tiny components with is kit so it is best if you proceed on a building by building basis starting with Fig.1.

Fig.1.

Extract ALL the components from sheet 'A' only



THE THICK CARD SHEET

This thicker card contains mainly inner strengthening components for all parts of the kit. As they are all marked with descriptions and code numbers, you can extract them ALL from the base sheet and place them in a separate builders yard ready for use. They will be referred to as the 'Thick Card' components throughout the instructions.

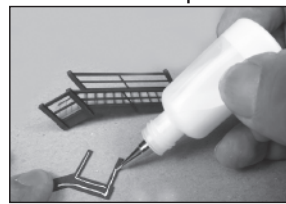
INSTRUCTION SHEET 1

CHECK LIST

This kit should contain the following:

- 1 x SHEET A. Printed with tower building etc.
- 1 x SHEET B. Printed with Office & Chimney.
- 1 x SHEET C. Printed with Boiler/Engine room.
- 1 x THICK CARD SHEET printed with black & grey inner strengtheners and floors etc.
- 1 x Laser cut grey card with chimney tops etc.
- 1 x GLAZING SHEET.
- 1 x RIDGE TILE SHEET.
- 2 x INSTRUCTION SHEETS.

The METCALFE Ultra Fine Tip Glue Bottles are essential for gluing the smaller components in this kit.



Tiny strips or spots of glue can be Accurately laid down with precision.



Always replace the pin after use and store the bottles upside down to keep the glue moist.

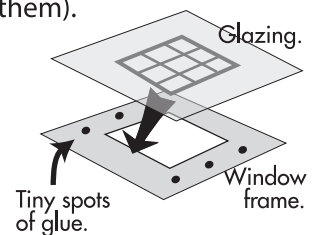
UHU Solvent Free All Purpose Adhesive Glue

Works superbly well in our fine glue applicators. Dries quickly, but allows time for positioning of kit parts as described further on in the instructions. Also Deluxe Materials 'SPEEDBOND' A fast drying PVA. see www.deluxematerials.com

Fig.2. GLAZING THE WINDOWS.

Start by cutting out ALL the glazing pieces, and place them in a separate area (on a dark piece of card is good so you can see them).

Each of the glazing pieces is attached to the back of a corresponding window frame. Fit with the printed side of the glazing facing through the window opening from the back.



You can tell the printed side if you hold up to the light and see the ink standing on the surface. The other side is quite dull by comparison.

For now, only attach the glazing to the window frames extracted from sheet 'A'.

NOTE: There are two inter-building double frames. These take glazings marked 'TOWER'

Most doors have a door frame that fits in front. as shown here.

Note: The tower door has no frame but acts as a window frame to the side.

Place windows and doors back into the builders yard until needed.

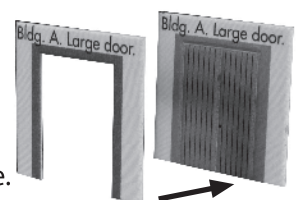
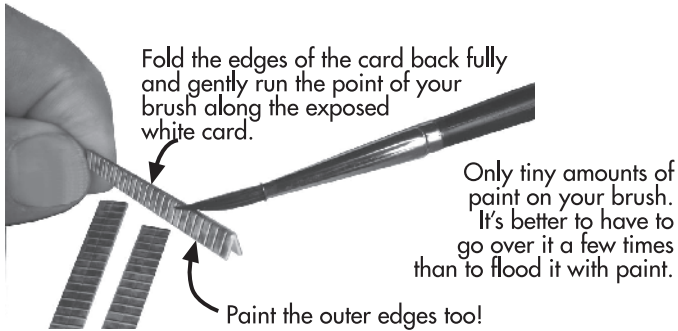


Fig.3. PAINING CORNERS & EDGES.

As you proceed with this kit you will notice that the white card this kit is printed on shows through on the edges and corners. To make a perfect job of things these areas look a lot better if they are hidden by painting over them. And this is best done as you are constructing the kit before fitting, and it is very easily done. All you need is simple set of child's water colour paints and a fine brush.



Mix your colour with lots and lots of water, apx. 1 part paint to 5 parts water, maybe more. **TEST ON WASTE CARD FIRST UNTIL YOU HAVE THE CORRECT SHADE AND COLOUR.**

Before the paint dries, run your finger along the edge to rub the colour into the absorbent white card. Then wipe away any paint that has run onto the printed surface before it dries.

Remember, you only need to just slightly tint the card with a little colour, **DON'T** paint a thick solid line down the edges, you will only make it look worse.

Fig.4. THE TOWER BUILDING.

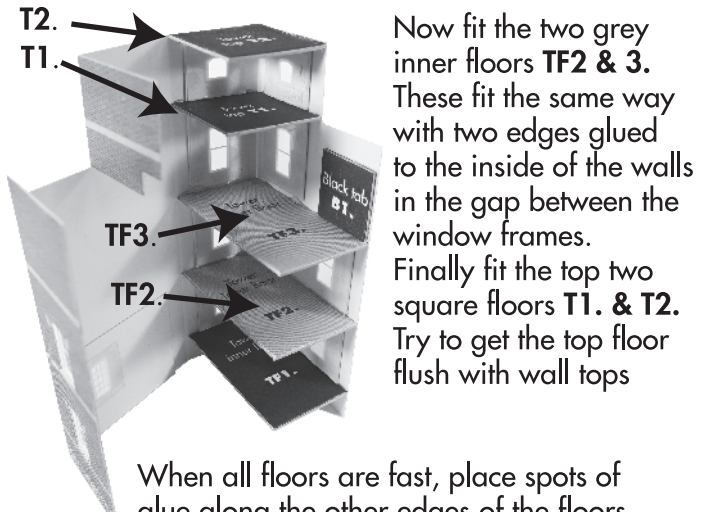
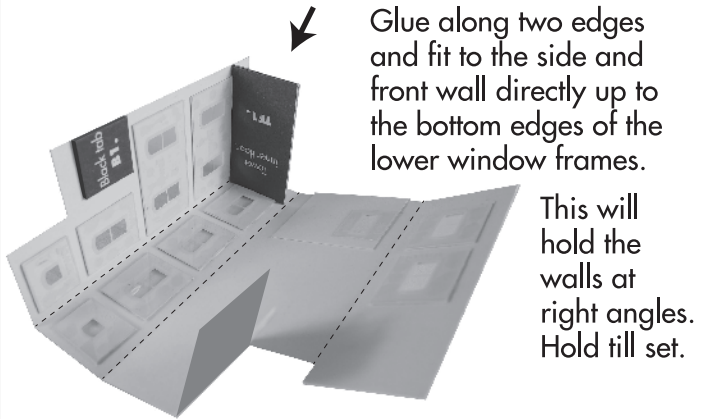
Starting with the outer walls, bend all four scorelines fully to loosen up and then attach the door with the small glazing.

Next, fold back the black tab and glue then attach thick card black tab **B1** directly over the top with edges flush. Now attach all the window frames with their glazing already fitted (as in Fig.2.).

Tiny spots of glue placed on the grey areas of the frame then fit to window opening from behind so frames are centred in each opening.



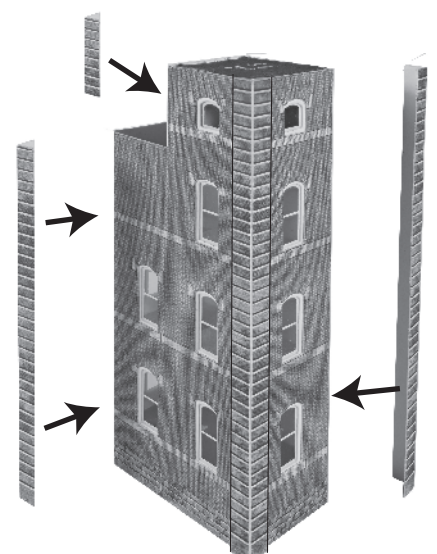
Now fit the thick card inner floor **TF1**.



When all floors are fast, place spots of glue along the other edges of the floors and then fold the walls around so the corners meet. No need to glue the corners because the cornerstone strips shown below fit around the corners to hold them together.

There are two long corner stone strips, one medium and one very short corner stone strip. These fit around the corners of the tower as shown.

Paint the edges of the strips and along the centre crease line before you fit.

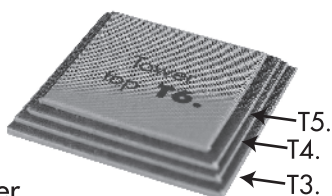


NOTE: DO NOT FIT CORNERSTONE STRIP TO THE OPPOSITE CORNER (the corner out of sight in this photo)

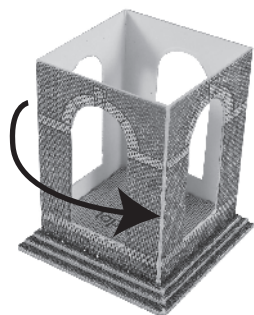
See Fig.9. bottom photo to see why.

Fig.5. THE TOWER TOP.

We start at the bottom and work up.
Thick cards **T3**, **T4**, **T5**, and **T6**, all fit one on top of the other to give a stepped plinth for the tower to sit on

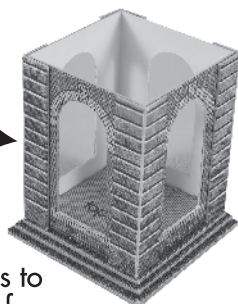


Make sure all edges are stepped in, equally, on all four edges.

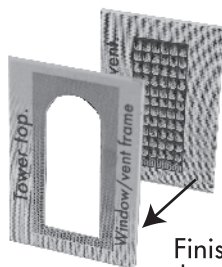


Fit tower top outer walls. This fold around the top grey card **T6**, sitting down onto the card below. Fit with tiny spots of glue around the base.

Then fit the four corner stone strips

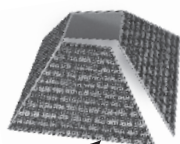
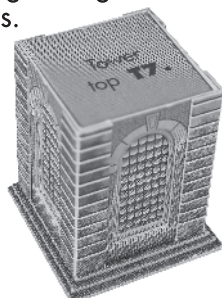


Don't forget to paint them first



Fix the four vents to the backs of the frames. Then fix each one inside the tower top showing through the window openings.

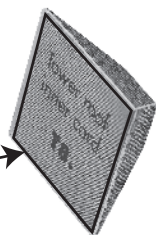
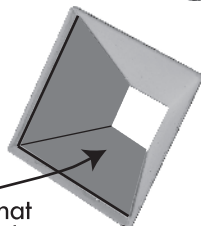
Finish it off by popping the top **T7**, just inside sitting on the vents.



The roof folds to four sides and the inner fastener fits inside to hold the edges together.



Push up inside so that there is a lip on the bottom edges allowing the inner card **T8**, to sit inside the roof to hold it square.



Fit roof to tower top and cap the hole with the three tiny square grey cards from the laser cut card. Glue one on top of the other as shown here and fit over the hole.

Finish off the roof with some ridge tile strips on the corners. Don't forget to paint the edges and score line first.

Now fit to the main building.

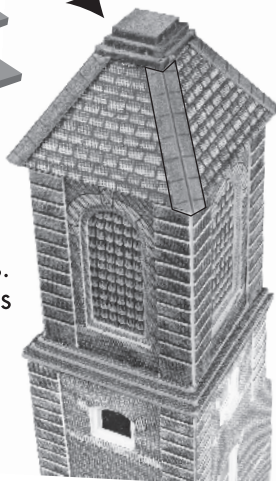
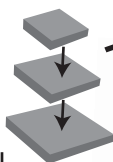


Fig.6. INTERCONNECTING BUILDINGS.

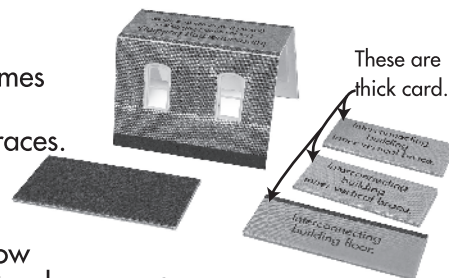
These little buildings are used to connect the various factory buildings together. The straight building can be used at ground level or as a bridge and the two angled buildings are usefull when joining buildings inside curved track areas.



We start with the straight walkway.

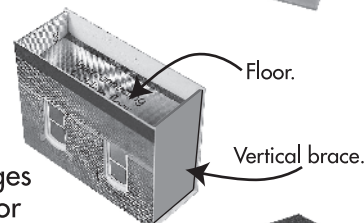
Consisting of:

- 1 x Outer walls.
- 2 x Window frames
- 1 x Roof.
- 2 x Inner wall braces.
- 1 x Floor.



These are thick card.

Fit the two window units first, then stand on its roof and fold the walls up against the two vertical braces fitted at each end standing against the edges of the windows. The floor sits down inside sitting on the bottom edges of the windows



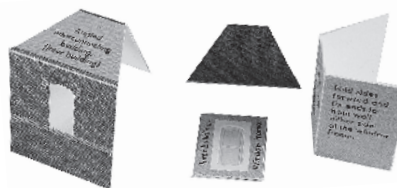
Floor.

Vertical brace.



Turn back over and fit the roof.

ANGLED BUILDINGS

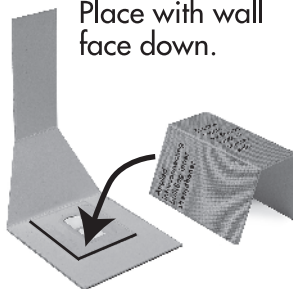


Each consisting of:

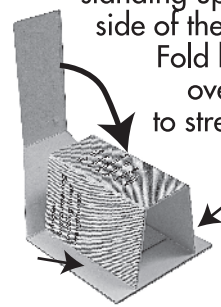
- 1 x Outer walls.
- 1 x Roof.
- 1 x Inner wall braces.
- 1 x Window.

Fit the window first.

Place with wall face down.



Fit the strengthener standing up to either side of the window. Fold back wall over and fix to strengthener



Fit the roof, flush to the sides and overhanging front and back.

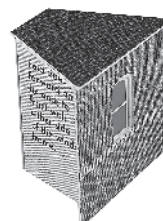
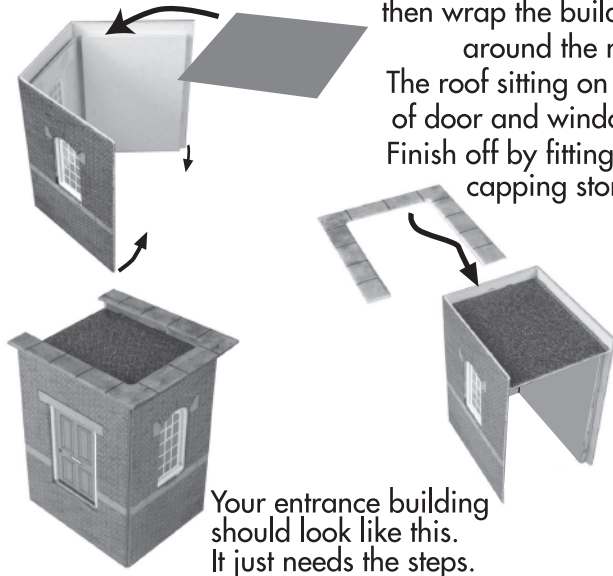


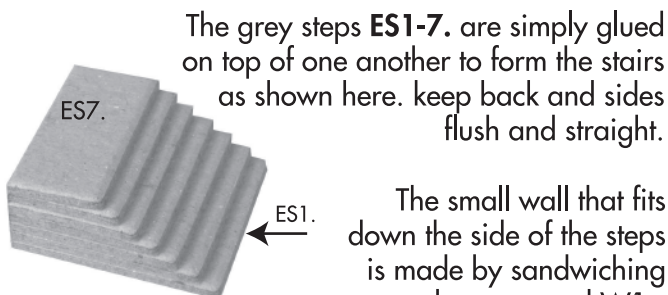
Fig.7. ENTRANCE BUILDING.

Start by fitting the two glazings W2. (SEE ERRATUM on back page of instruction sheet 2) to the window frames, and door to door frame, then wrap the building around the roof. The roof sitting on top of door and windows. Finish off by fitting the capping stones.



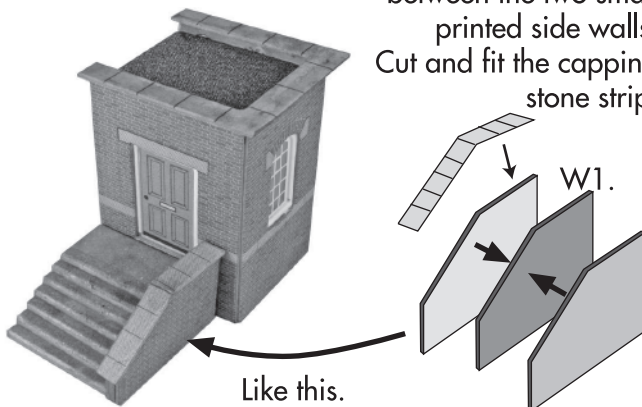
Your entrance building should look like this. It just needs the steps.

You need the Thick Card steps ES1 to 7 and the small inner wall W1.



The grey steps ES1-7. are simply glued on top of one another to form the stairs as shown here. keep back and sides flush and straight.

The small wall that fits down the side of the steps is made by sandwiching the grey card W1. between the two small printed side walls. Cut and fit the capping stone strip.



Like this.

Fig.8. THE OFFICE BUILDING.

We call it the office but it could be used for anything. Just a square building with windows in each gable.

Start by extracting ALL the components from **Sheet 'B'** which includes the gate house and mill chimney. Place all in the builders yard and proceed to match up the window frames with their glazing sheets, and the office door with its door frame

You need Thick Card Office floors BF1, BF2 & BF3.

After fitting the six windows and the door, fix the first floor BF1.

so that the cut away section fits around the door.

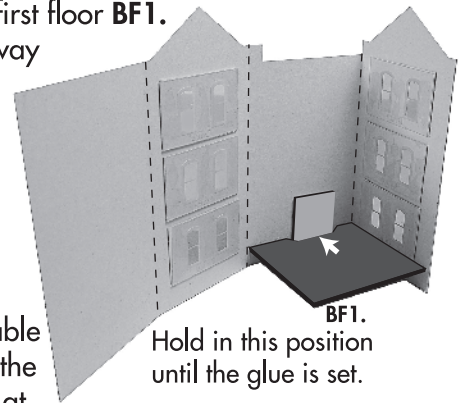
The other edge fitted to the back of the gable wall just under the window frame.

Fold the other gable around to check the other edge is set at the correct level

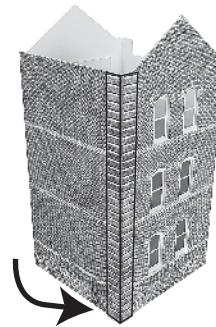
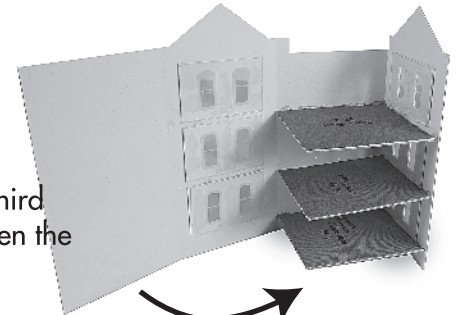
but don't glue, open back out

so you can fit the upper floors.

The second and third floors fit in between the window frames.



Hold in this position until the glue is set.



Fold the walls around fixing them to the inner floors, then attach the corner stone strip over the join to hold corner together (don't forget to paint edges etc first).

DON'T FIT THE OTHER TWO CORNER STRIPS YET.

Put the building to one side until needed.

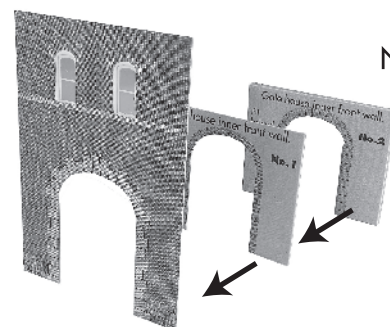
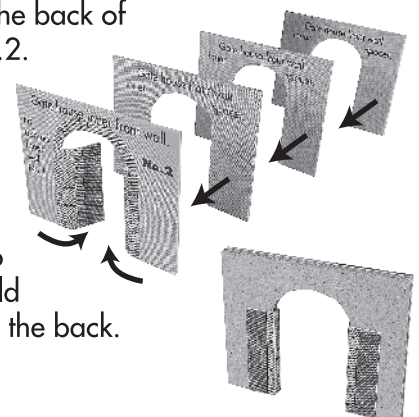
Fig.9. THE GATE HOUSE.

Take the three Thick card gate house front wall spacers and glue them all together so all edges are flush.

Then glue them to the back of Inner front wall No.2.

Make sure all outer edges line up flush.

Then fold the gate side walls back into the opening and fold around and glue to the back.



Now fix gate wall No.2.

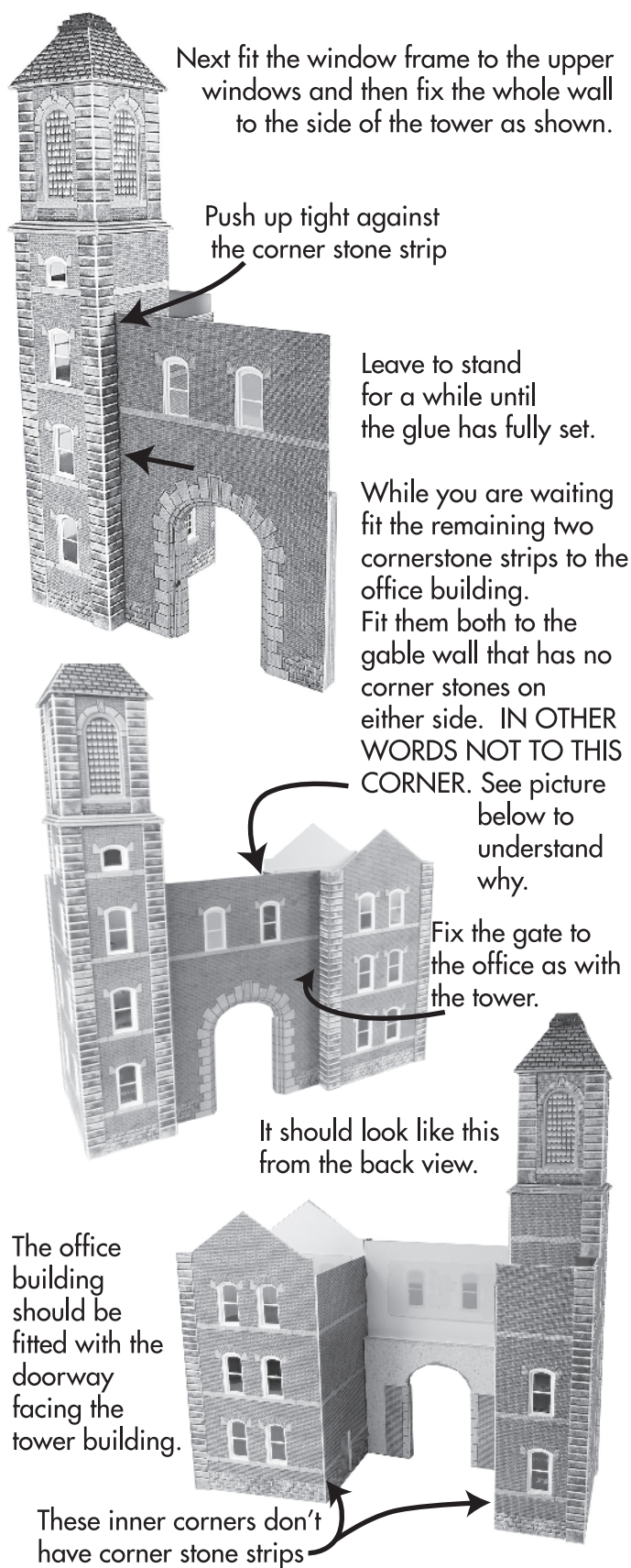
to the back of No.1 and then to the back of the main gate wall.

Keep the outer side edges flush.

Continued on sheet 2.

PN184 Factory Entrance & Boiler House

Fig.9. THE GATE HOUSE Cont'd.



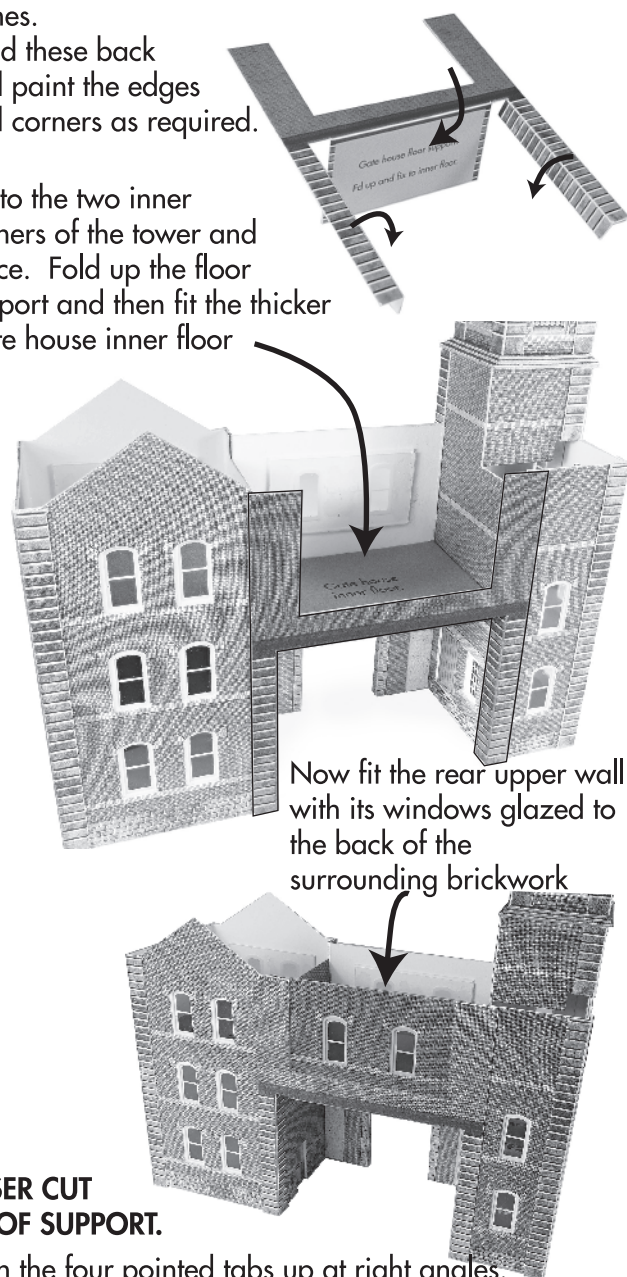
The inner wall around the gate opening does show grey card if you look inside the finished building, if this bothers you paint it a darker colour now whilst you can get to it.

INSTRUCTION SHEET 2

Now for the bit that fits across the back. The rear wall support is an 'H' shaped piece. There is a floor support that folds up and the lower legs are corner stones.

Bend these back and paint the edges and corners as required.

Fix to the two inner corners of the tower and office. Fold up the floor support and then fit the thicker Gate house inner floor



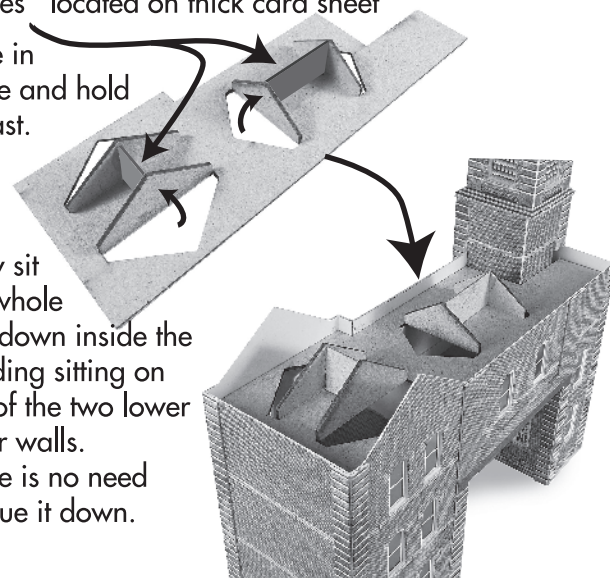
LASER CUT ROOF SUPPORT.

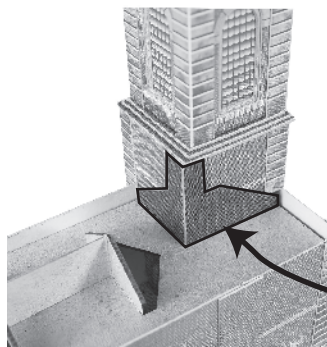
Push the four pointed tabs up at right angles. They are held in position by the two small 'Roof truss braces' located on thick card sheet

Glue in place and hold till fast.

Now sit the whole unit down inside the building sitting on top of the two lower inner walls.

There is no need to glue it down.

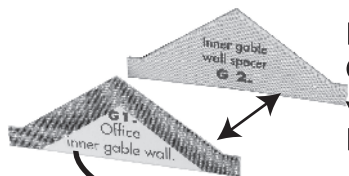




INNER WALLS.

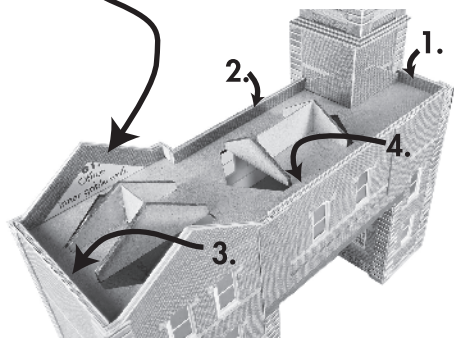
These fit all around the inside edges of the upper walls that stand above the roof support.

Start with the odd shaped tower inner corner. Fit around this corner.



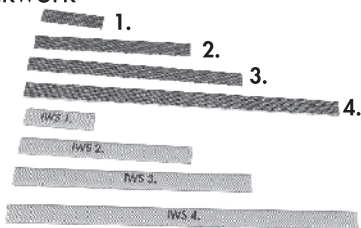
Fit the two inner gables **G1**. on to thick card gable wall spacer **G2**. Keep all edges flush.

Now fit them both to the inside of the gable walls. Keep top edges flush.



Now for the side walls.

These long strips of brickwork **BS1**. 2. 3. & 4. fit onto the grey inner wall spacers **IWS1**. 2. 3. & 4 to make them thicker all edges flush.



These four brick strips are then attached to the inner wall tops as shown above flush with the top edges.

Fit the two roof sections, sitting on the roof supports. Then fit the ridge tile strips before fitting the wall top coping stone strips.

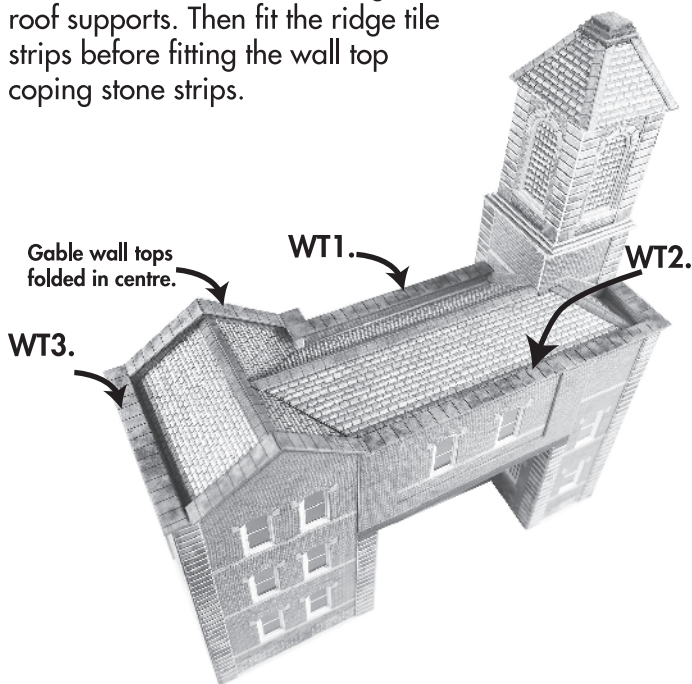
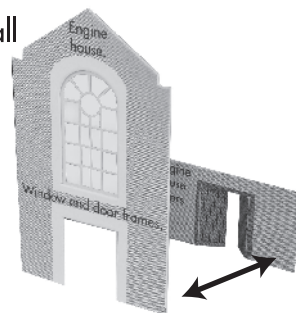


Fig.10. THE ENGINE HOUSE.

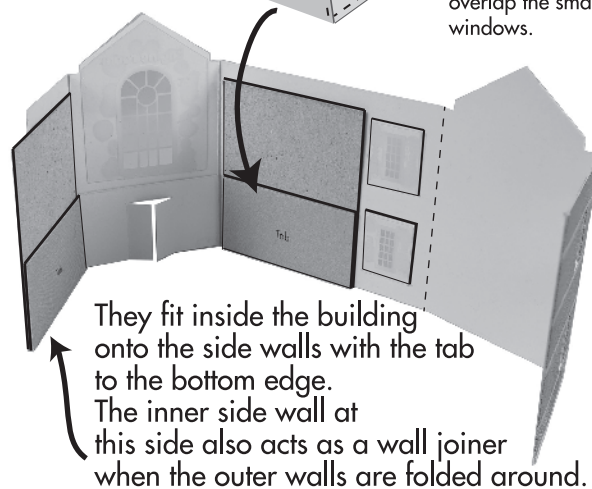
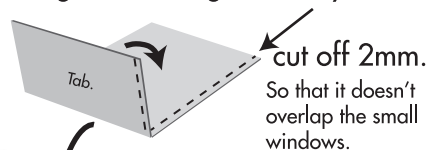
Fit the glazing to the four small window frames and the large one to this card. Fix the door to the back of the door frame keeping outer edges flush and then fix the whole unit to the back of the corresponding openings on the main walls.



INNER SIDE WALLS.

These two grey cards fit inside the building and hold the inner floors at the correct height. **HOWEVER** they do need 2mm. trimming off one edge before you start.

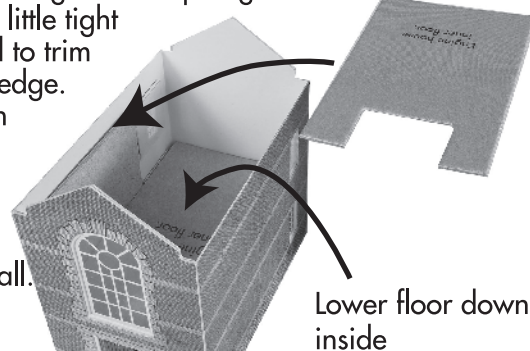
Then fold the tab section over and glue down.



They fit inside the building onto the side walls with the tab to the bottom edge. The inner side wall at this side also acts as a wall joiner when the outer walls are folded around.

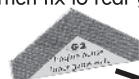
There are two inner floors. The first fits down inside the building sitting on the top edges of the tabs. **NOTE:** It is a little tight you will need to trim 1mm of one edge.

The floor with the cut away section sits down on top of the grey card inner wall.

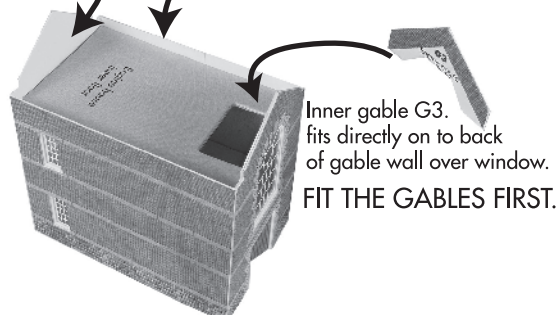


FIT UPPER INNER WALLS.

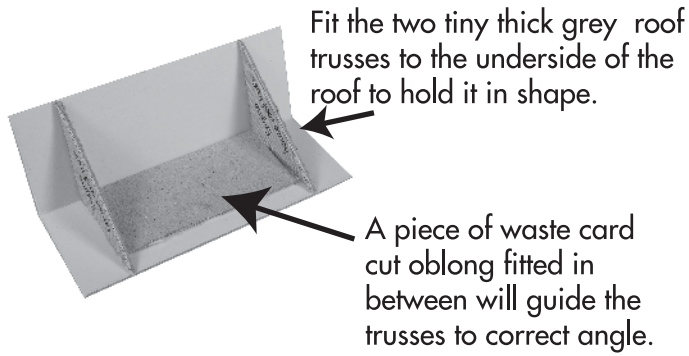
Inner gable **G2**. fixed to thick grey gable **IG2**. Then fix to rear gable wall.



Inner wall strips **WT5**. fixed to thick card strips **IWS5**.



Inner gable **G3**. fits directly on to back of gable wall over window. **FIT THE GABLES FIRST.**



Fit the roof down into the building and then fit the ridge tile strip before fitting the wall top capping stone strips. Don't forget to paint the edge before fitting.

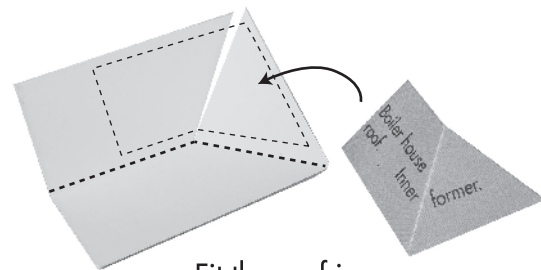
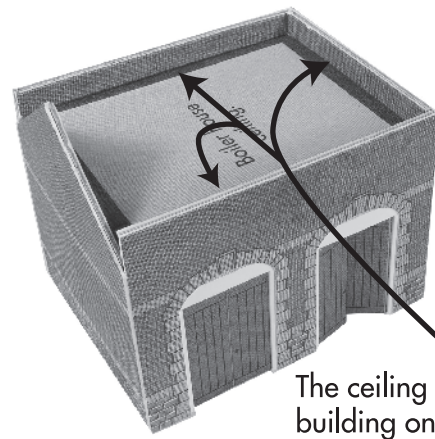
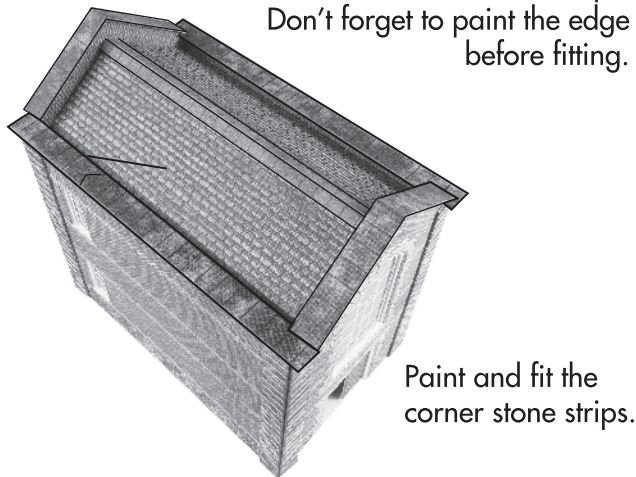


Fig.11. THE BOILER HOUSE.

As with the other buildings, fit the glazing and doors to frames etc. and then to the outer walls. Fit the thick grey inner back wall.

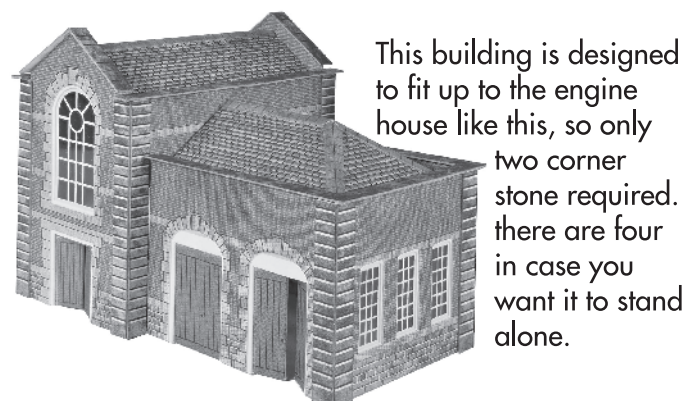
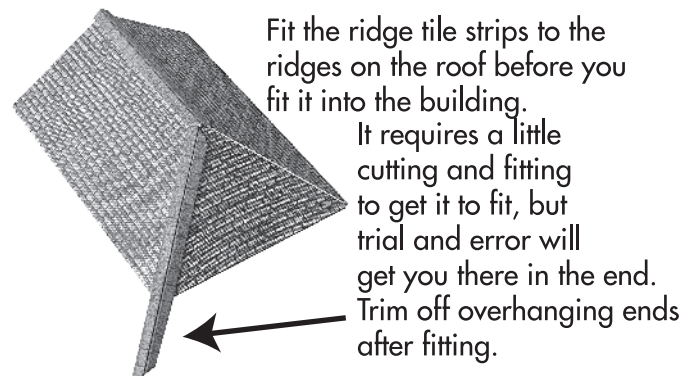
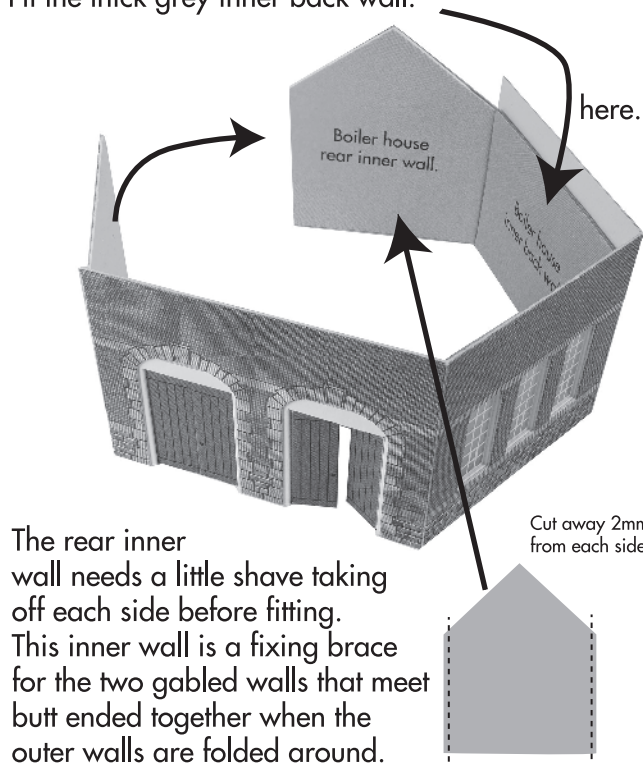
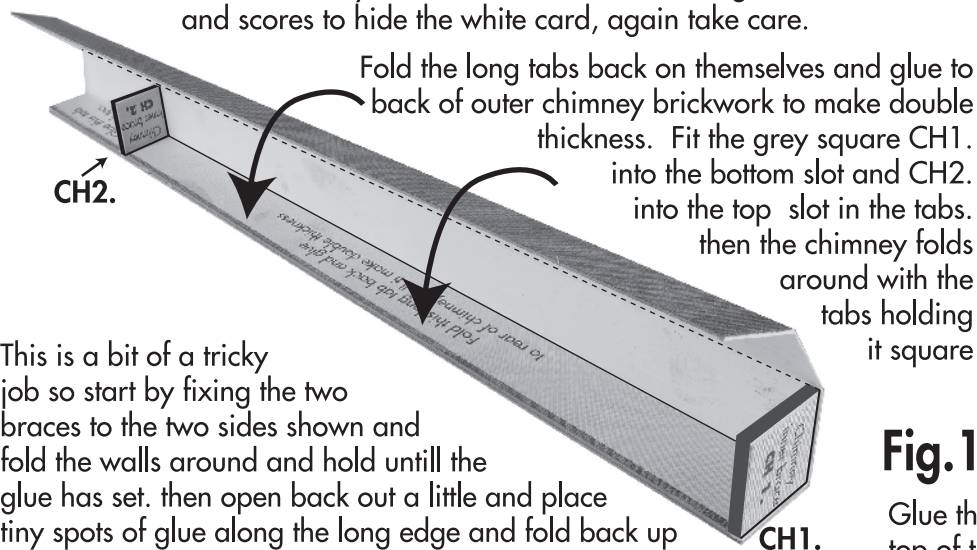


Fig.12. THE CHIMNEY.

Take the thick card chimney inner braces CH1. & CH2.
Glue the two CH1 cards together to make a double thick block, now do the same with the two smaller CH2.

Take the chimney and fold all the scorelines fully back to loosen up. You may need to run the point of your knife VERY lightly along the score lines to make them fold more easily, but be carefull. Paint the edges and scores to hide the white card, again take care.

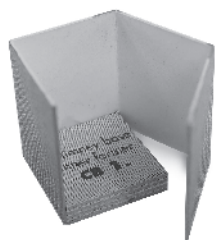


This is a bit of a tricky job so start by fixing the two braces to the two sides shown and fold the walls around and hold untill the glue has set. then open back out a little and place tiny spots of glue along the long edge and fold back up and weight down until the glue has set.

Finally top it off with the three laser cut chimney tops, glued one on top of the other, then fix your chimney stack to the chimney base and you are all done.



CHIMNEY BASE



Stick the four CB1. cards together to form a solid block, then wrap the base wall around as shown. Fix on the four corner stone strips

Then fit the two chimney base cards as shown here.

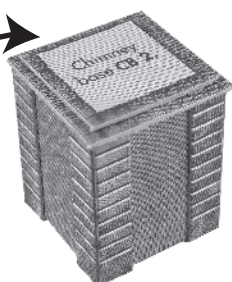
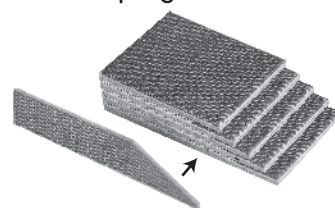


Fig.13. GATE HOUSE STEPS.

Glue the thick steps GS1 to 5. one on top of the other to make a small stairs. Fix the tiny brick side wall on to the side of steps and place the steps in the gate house entrance up against the tower door.



ERRATUM

This first edition has one or two minor design glitches, all of which are dealt with within the instructions. But also a couple of glazings were missed off the the main glazing sheet. These are the W2. windows for the entrance building (Fig.7.) Which should be taped to the instruction sheet just here

