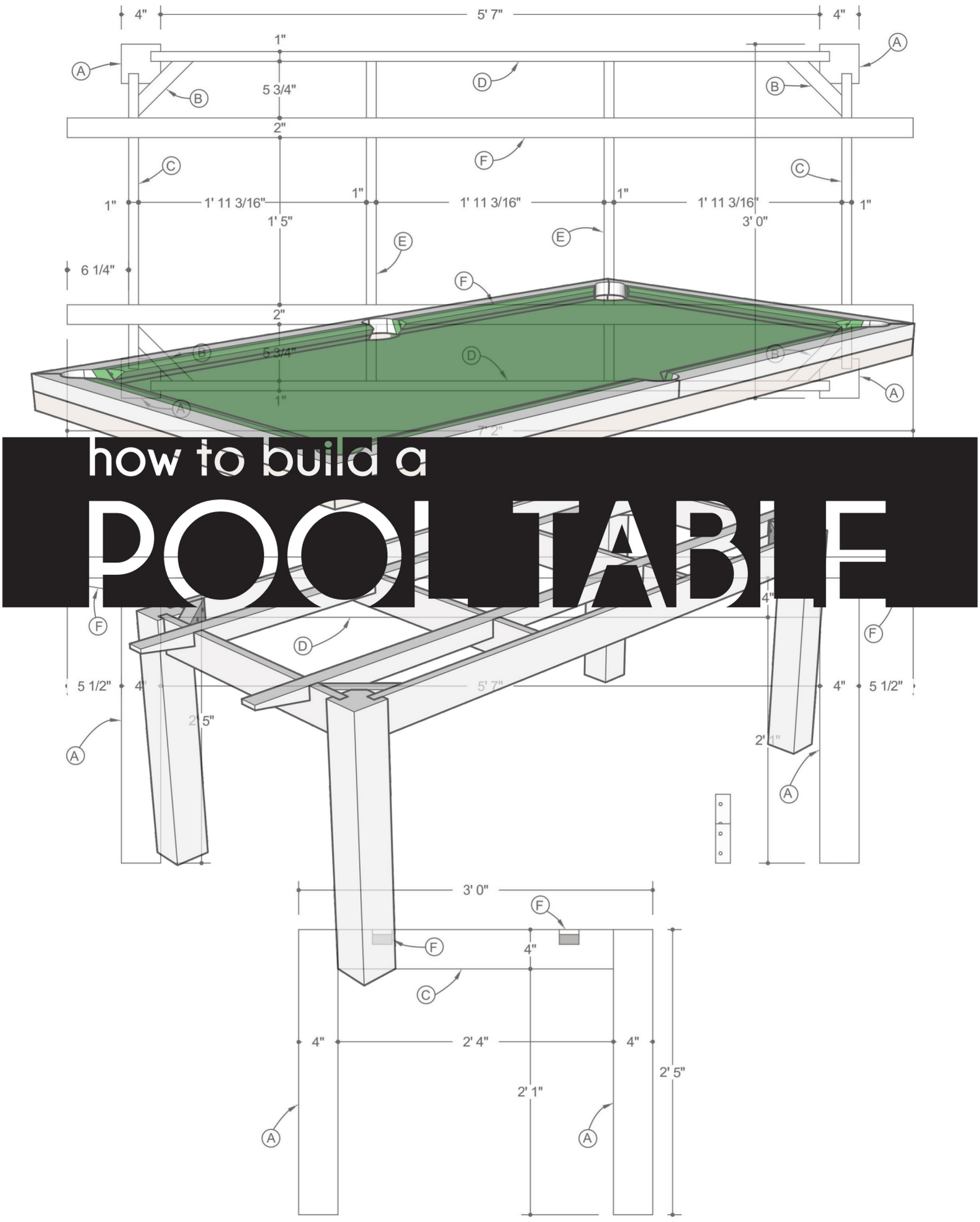


how to build a POOL TABLE

Aristidis Tonikidis

how to build a

POOL TABLE

Please note: Working wood is inherently dangerous. Using hand or power tools improperly or ignoring safety practices can lead to permanent injury or even death. Don't try to perform operations unless you are certain they are safe for you. If something about an operation doesn't feel right, look for another way or ask for assistance. We want you to enjoy your time in the woodshop, so please keep safety foremost in your mind whenever you're in the shop. Although every effort has been made to provide the best possible information in this book, the author is not responsible for accidents, injuries, or damage incurred as a result of tasks undertaken by readers. This book is not a substitute for professional services.

Eleven years have already gone by! Unbelievable! It was in autumn of 2006 when I first came up with the idea to gather all the plans that I had already created in order to build my pool table and make them available in a book form along with some instructions that arose from my experience during the construction.

Many things have changed during these eleven years. We have changed. Our experience, aesthetics and the knowledge have changed too. Going back to the original book, I don't get the pride that I felt when I saw it finished. I no longer feel the same pride for the plans, for the images, for the legibility, even for the font. It seems now so far and distant from my current assumption that really bothers me because it appears incomplete. I had to refresh it according to my new data.

I refreshed it!

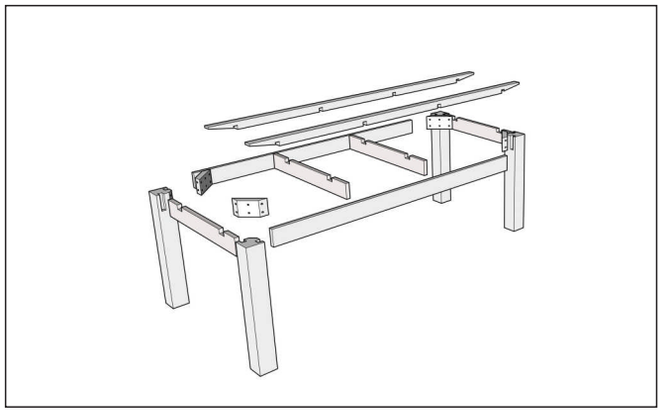
What have I done? Firstly I changed the plans into a more readable form and I also included 3D drawings of every component of the structure but also of the final result. I also created new plans for the construction of the table's base and a series of images that describe expressively every step of the assembly in a extremely simple way! Furthermore I considered that the details that derive from the plans make the description of the way of working for the construction of every component almost useless. Only the way of installing the felt on the surface and the side rail is described. Just that!

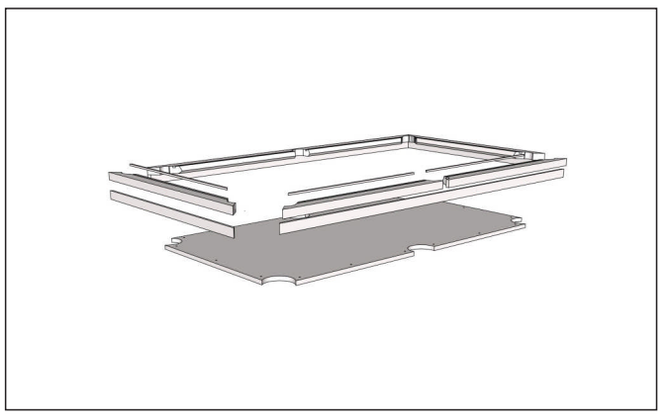
Of course not everything has changed: The dimensions of the inner surface of the game comply with the specifications of a 7' table. The height, the opening of the pockets and the slope of the rubber are designed according to the specifications. These are the parts in which I shifted my attention so that the final result is as it is supposed to be in order not to differ from the current reality.

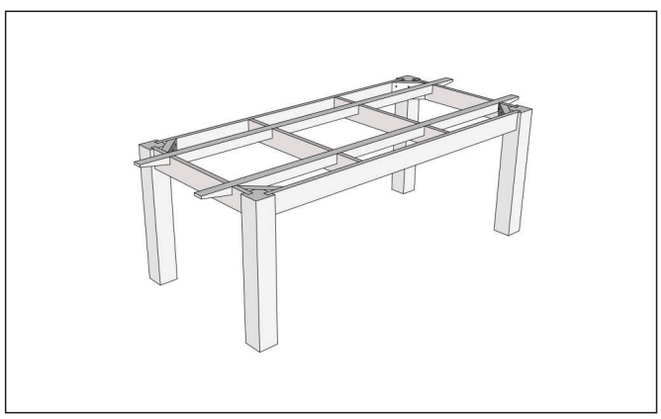
This is the new book that will show you how to build your pool table. I hope that it will help you accomplish your goal and that you will enjoy the whole process. Even the difficulties that you may encounter during that process are an integral part of the construction that contribute to the acquisition of experience, knowledge and .... patience. Remember that what matters is the journey and not the final destination. A Greek poet, Konstantinos Kavafis, in 1910 wrote in his poem Ithaca about the significance of the journey towards the accomplishment of a goal. Are you interested in reading it?

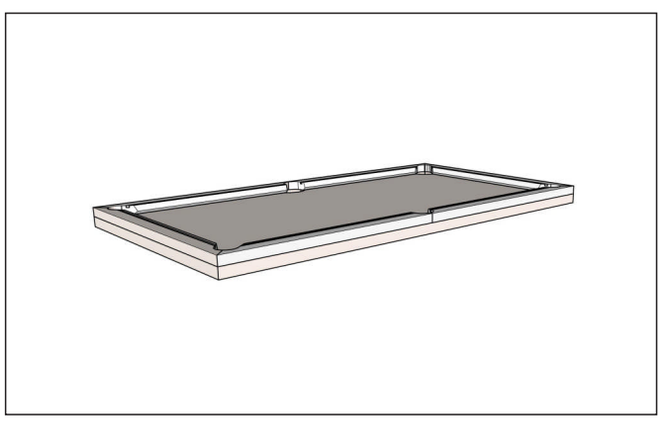
> *“As you set out for Ithaka*
> *hope the voyage is a long one,*
> *full of adventure, full of discovery.*
> *Laistrygonians and Cyclops,*
> *angry Poseidon—don’t be afraid of them:*
> *you’ll never find things like that on your way*
> *as long as you keep your thoughts raised high,*
> *as long as a rare excitement*
> *stirs your spirit and your body.*
> *Laistrygonians and Cyclops,*
> *wild Poseidon—you won’t encounter them*
> *unless you bring them along inside your soul,*
> *unless your soul sets them up in front of you.”*

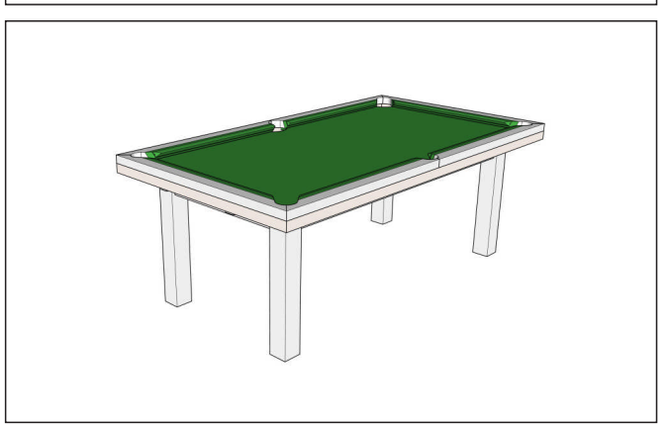
Aristidis Tonikidis











1 BASE PLANS

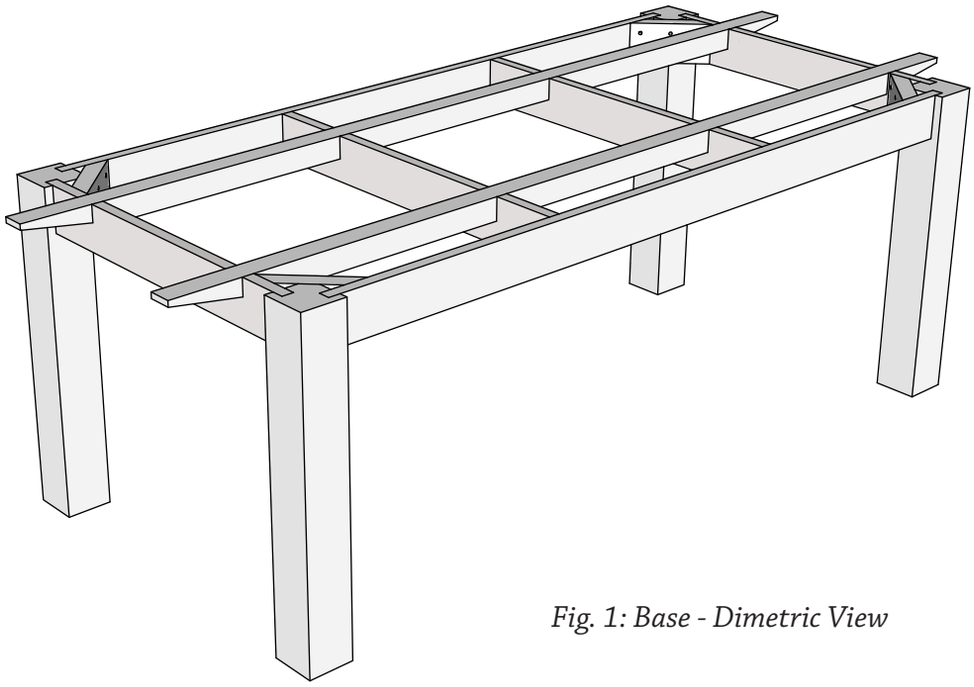


Fig. 1: Base - Dimetric View

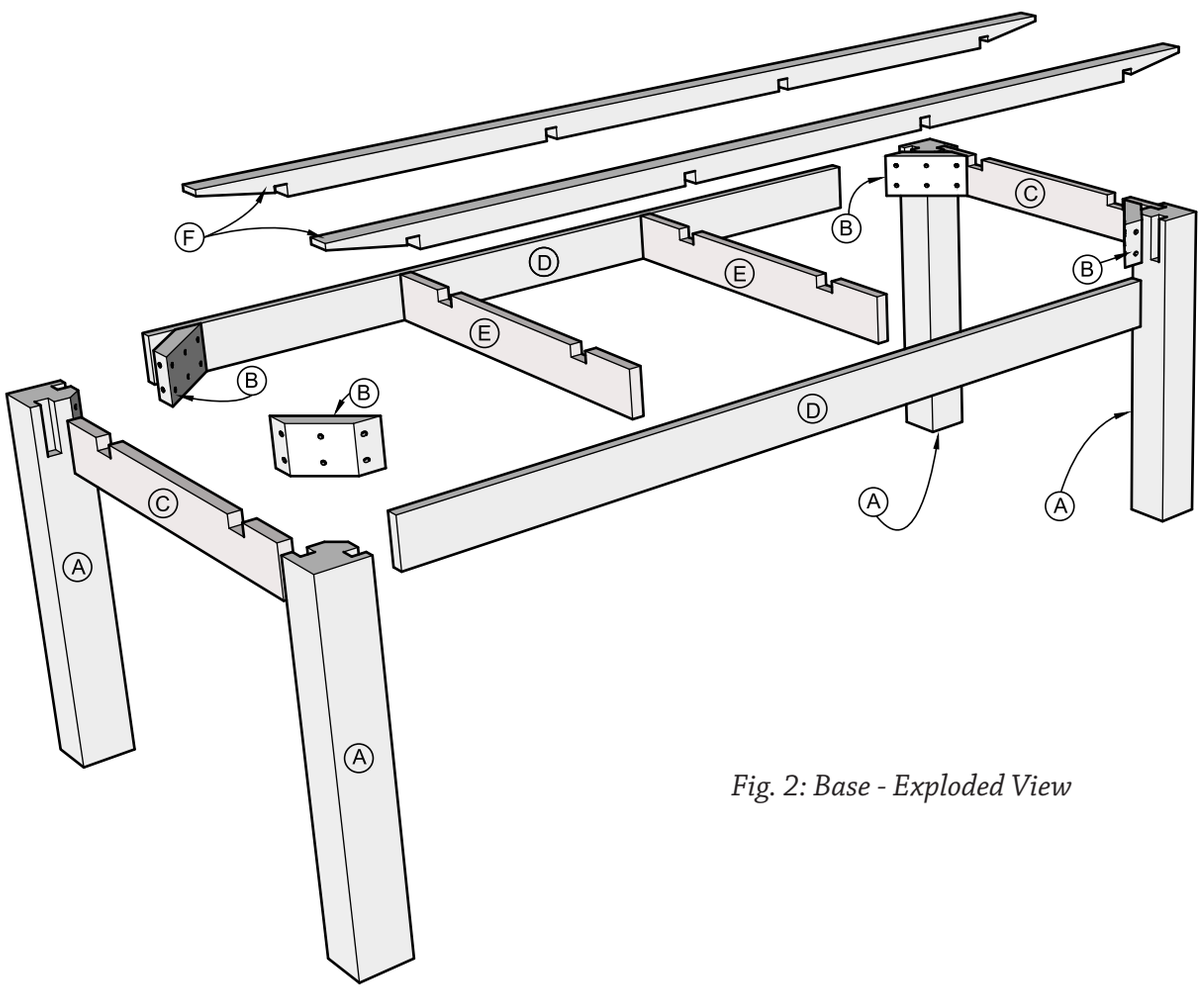


Fig. 2: Base - Exploded View

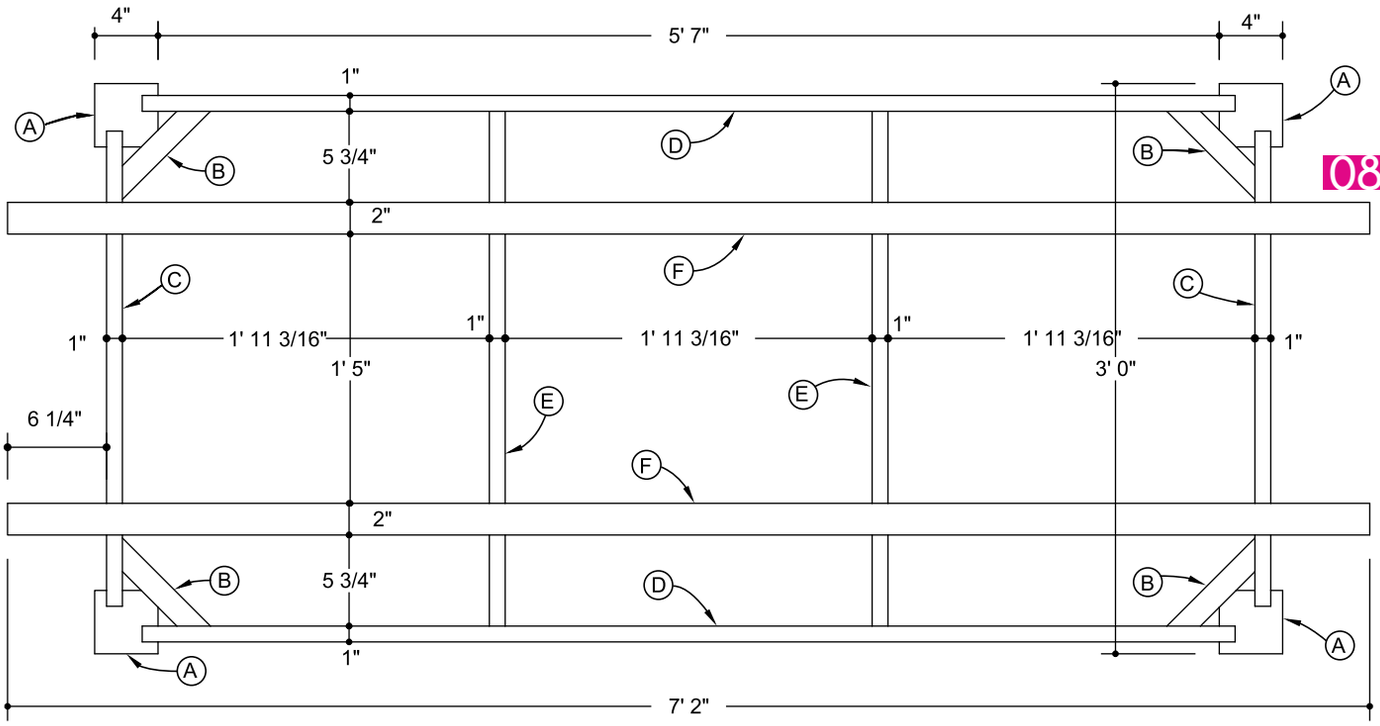


Fig. 3: Base - Top View

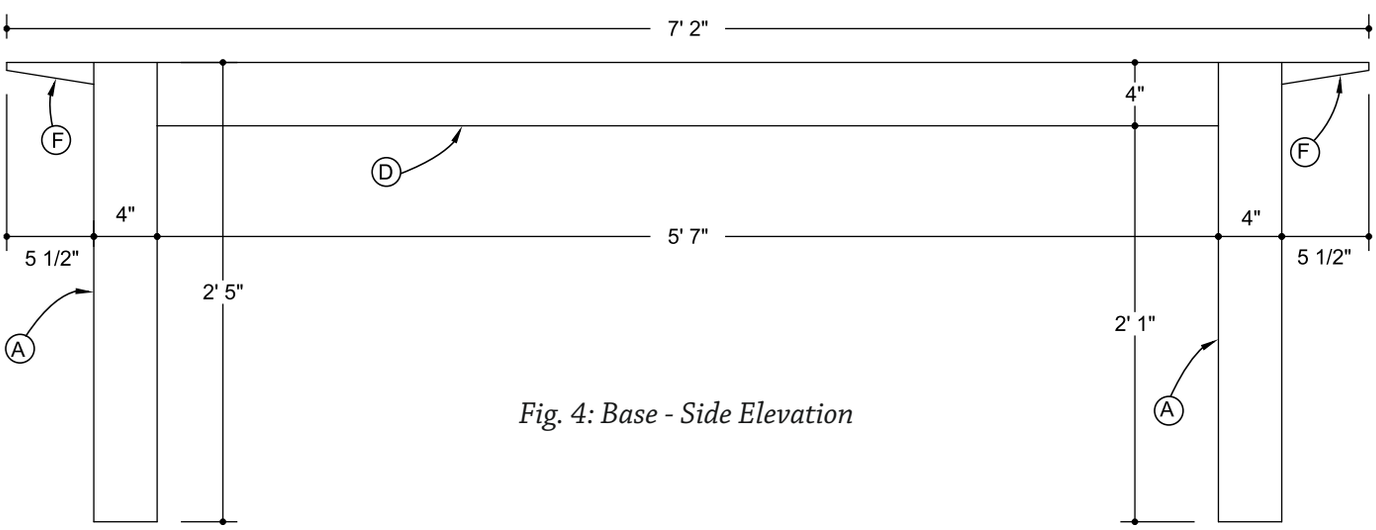


Fig. 4: Base - Side Elevation

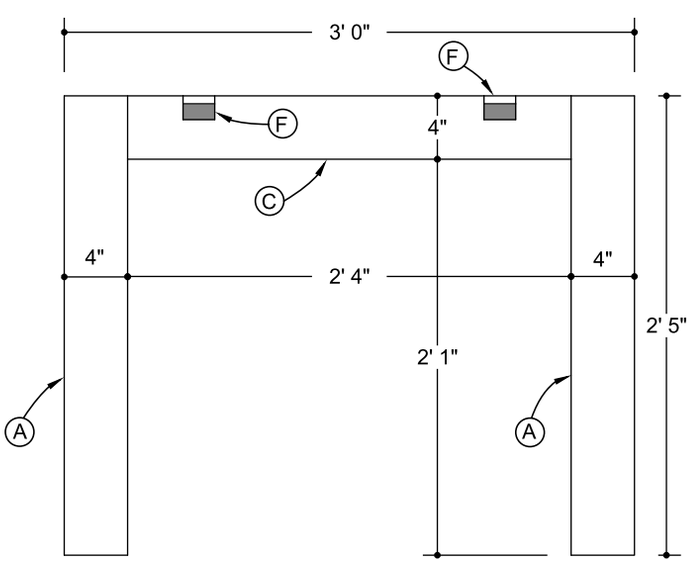


Fig. 5: Base - Front Elevation

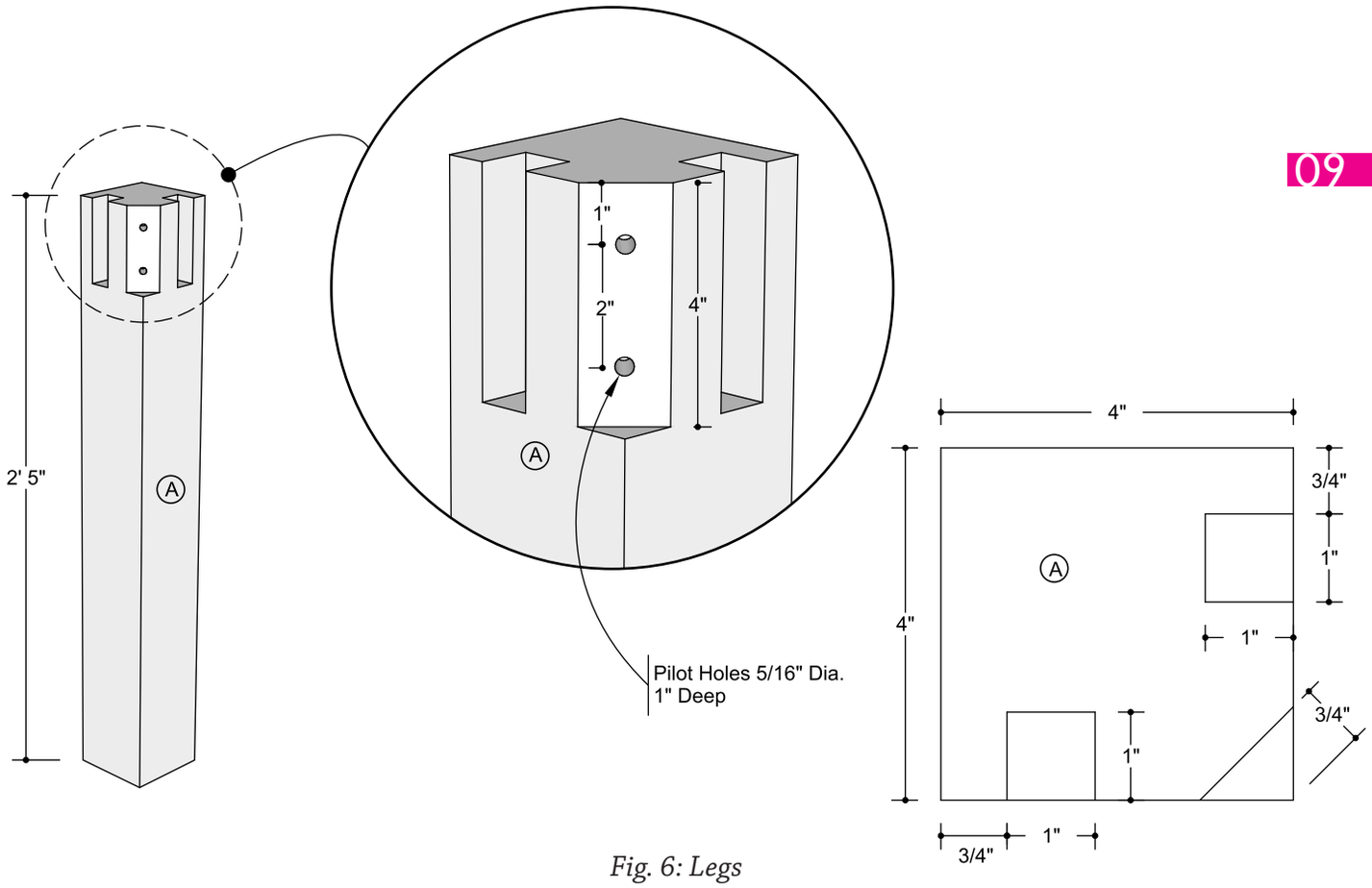


Fig. 6: Legs

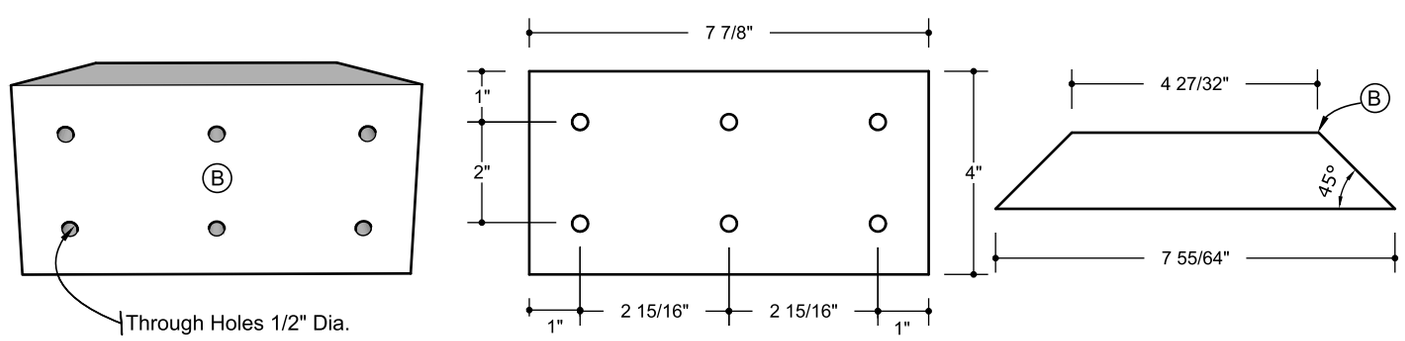


Fig. 7: Corner brackets

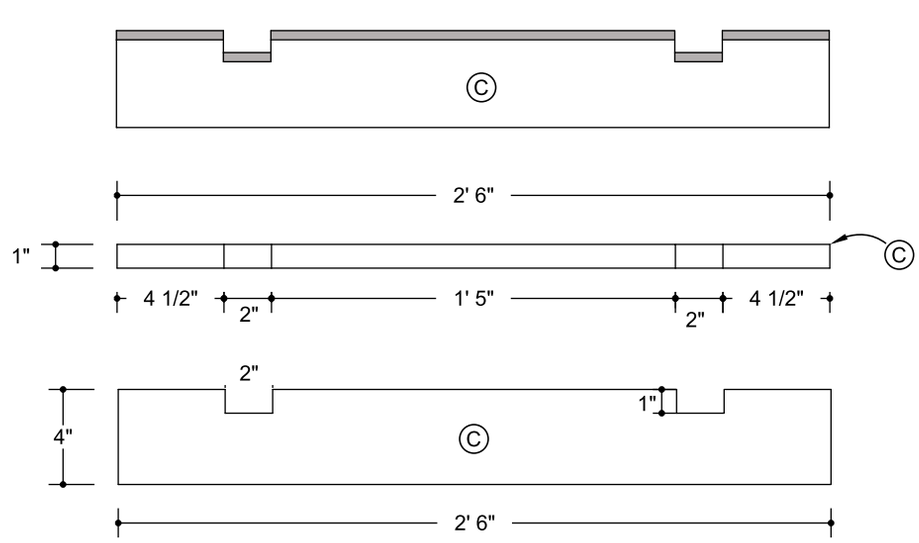


Fig. 8: End aprons

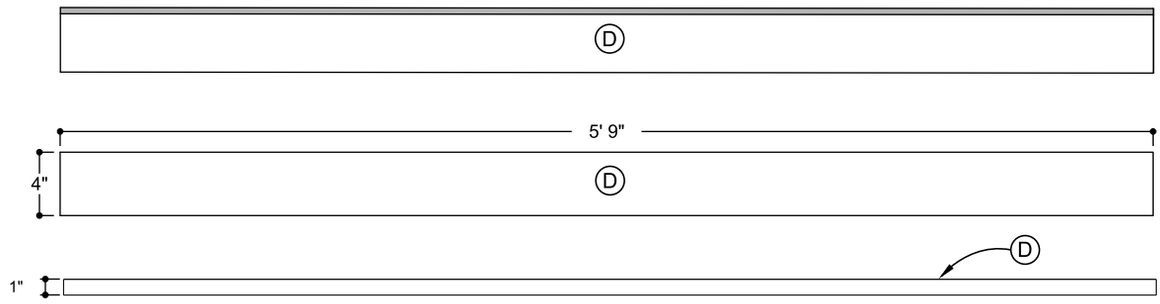


Fig. 9: Side aprons

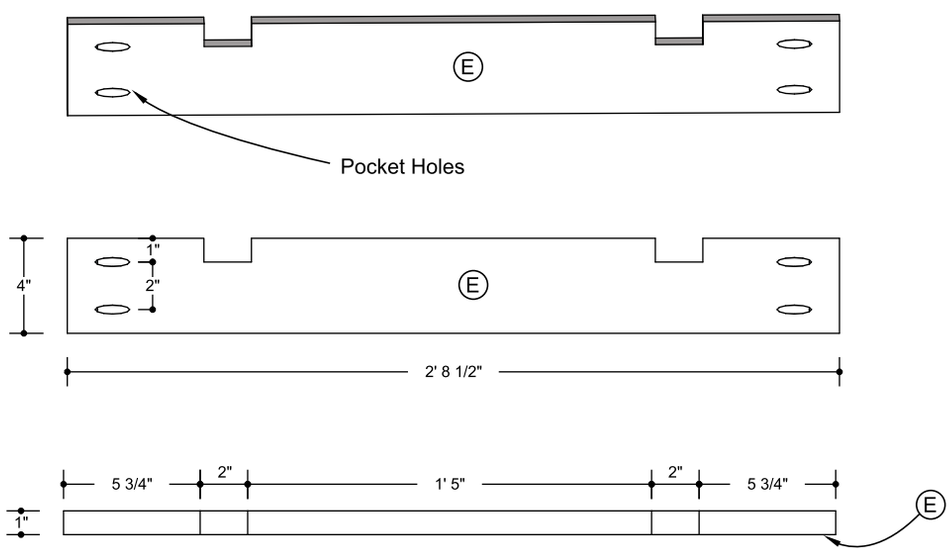


Fig. 10: Short interior frame support

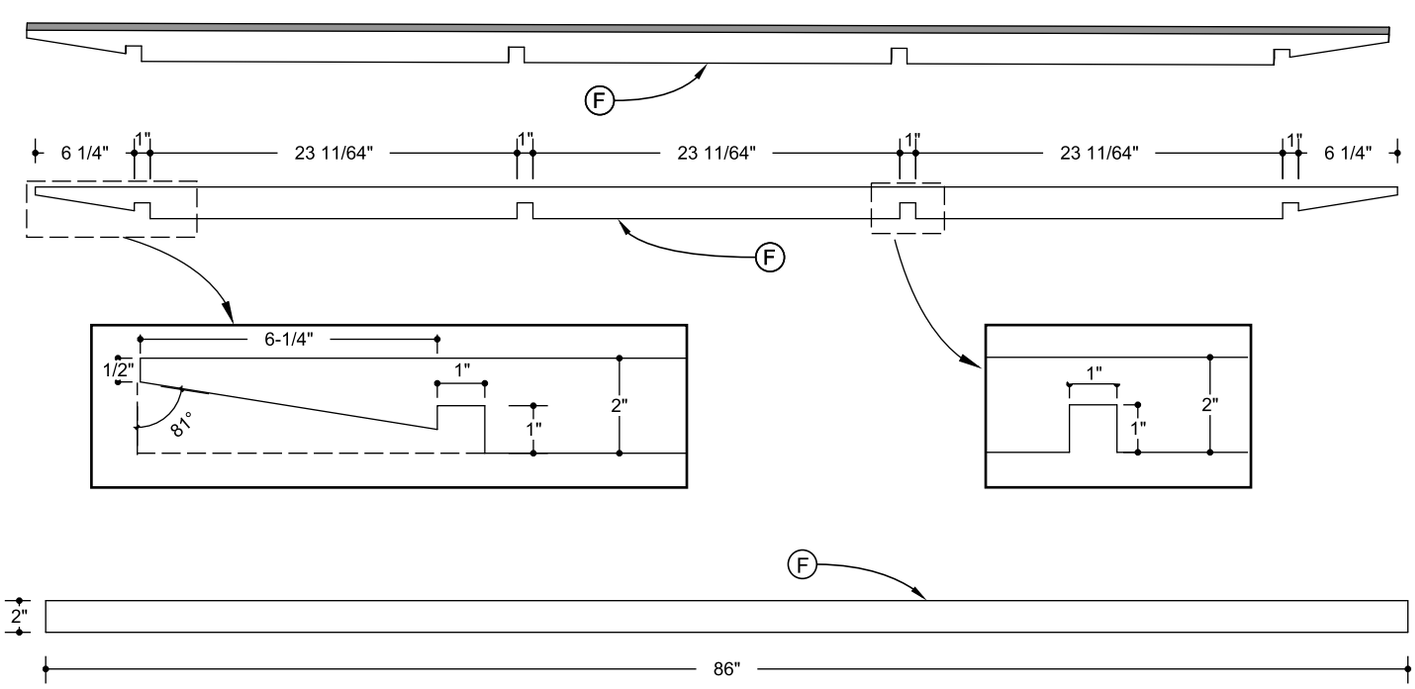


Fig. 11: Long interior frame support

2 TOP PLANS

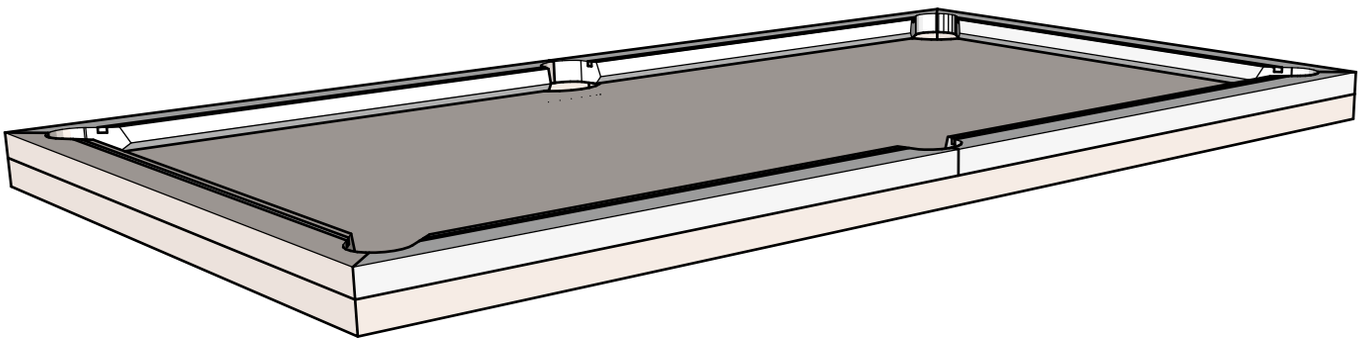


Fig. 12: Tabletop - Dimetric View

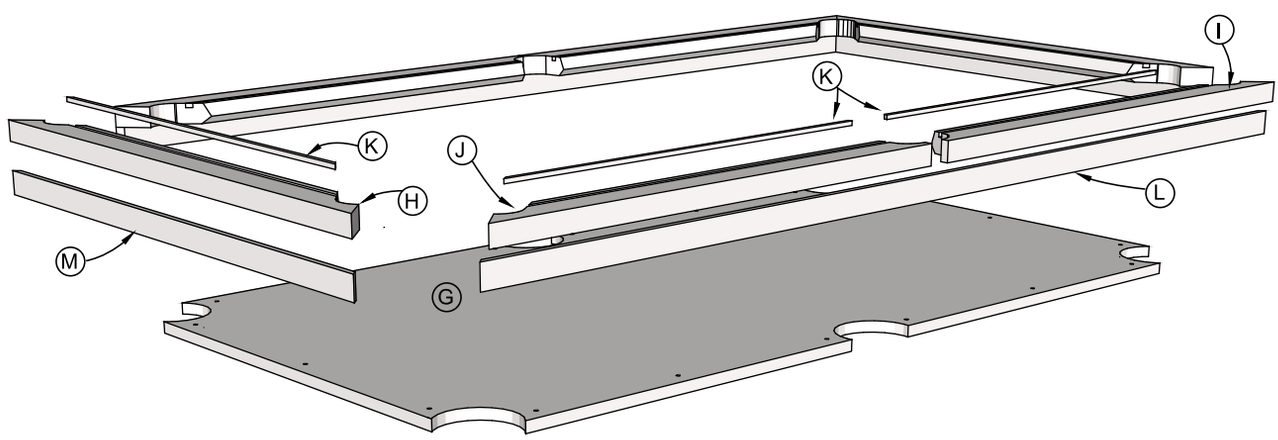


Fig. 13: Tabletop - Exploded View

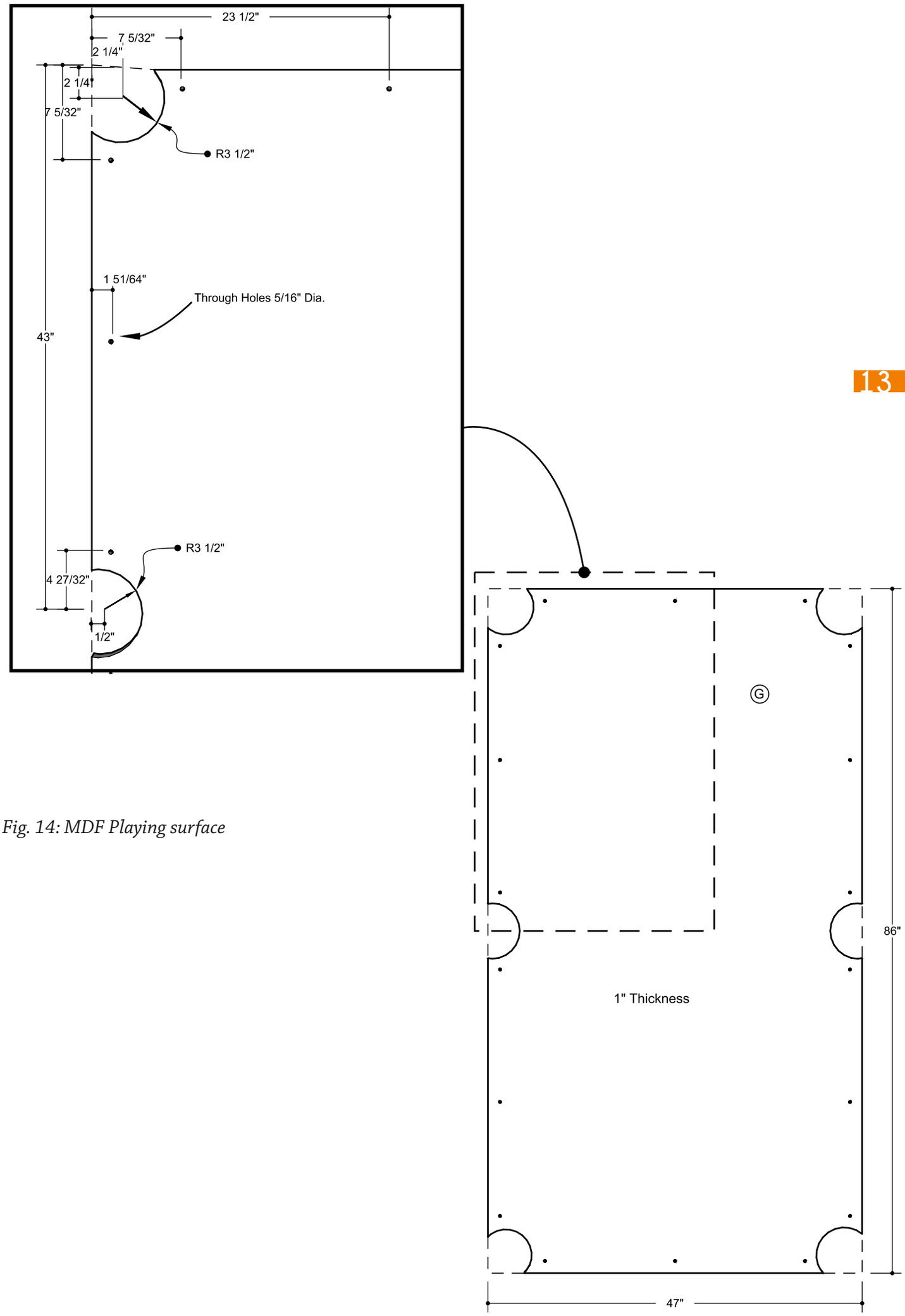


Fig. 14: MDF Playing surface

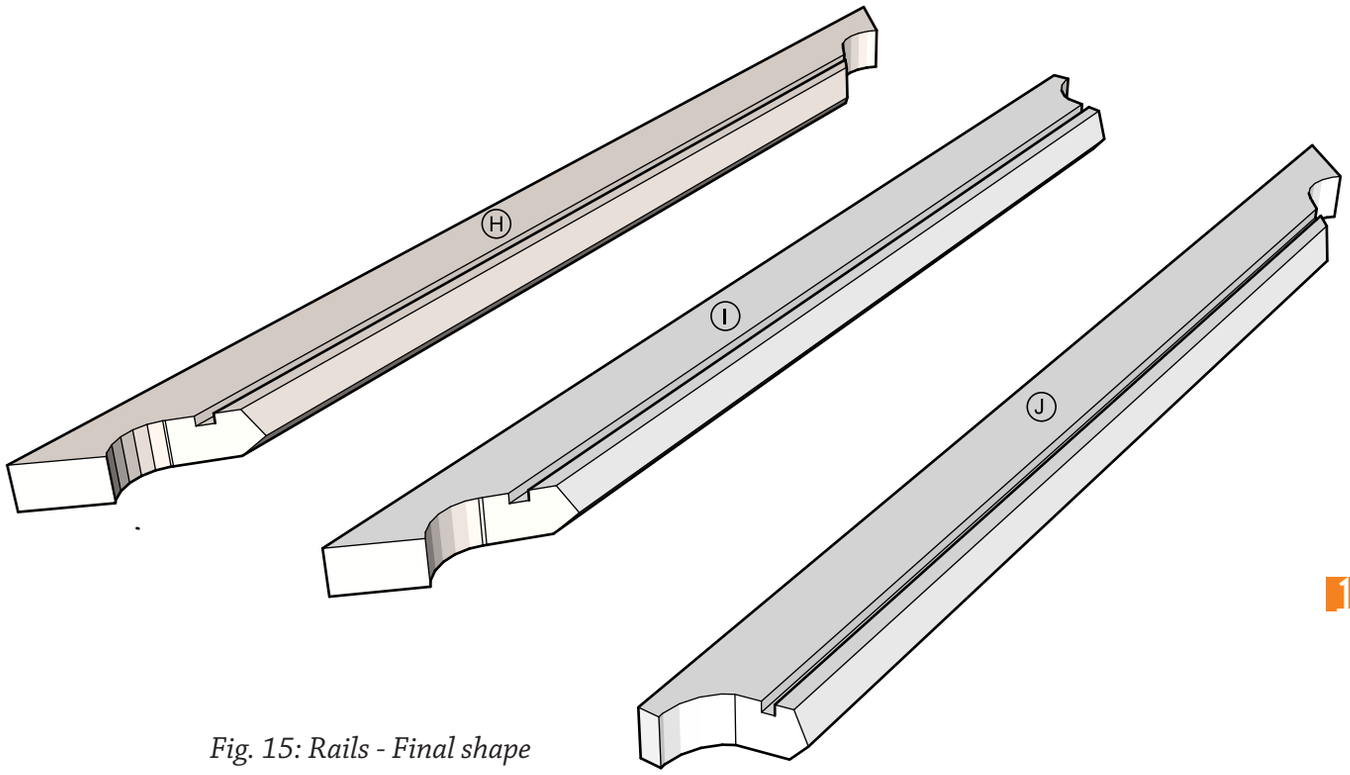


Fig. 15: Rails - Final shape

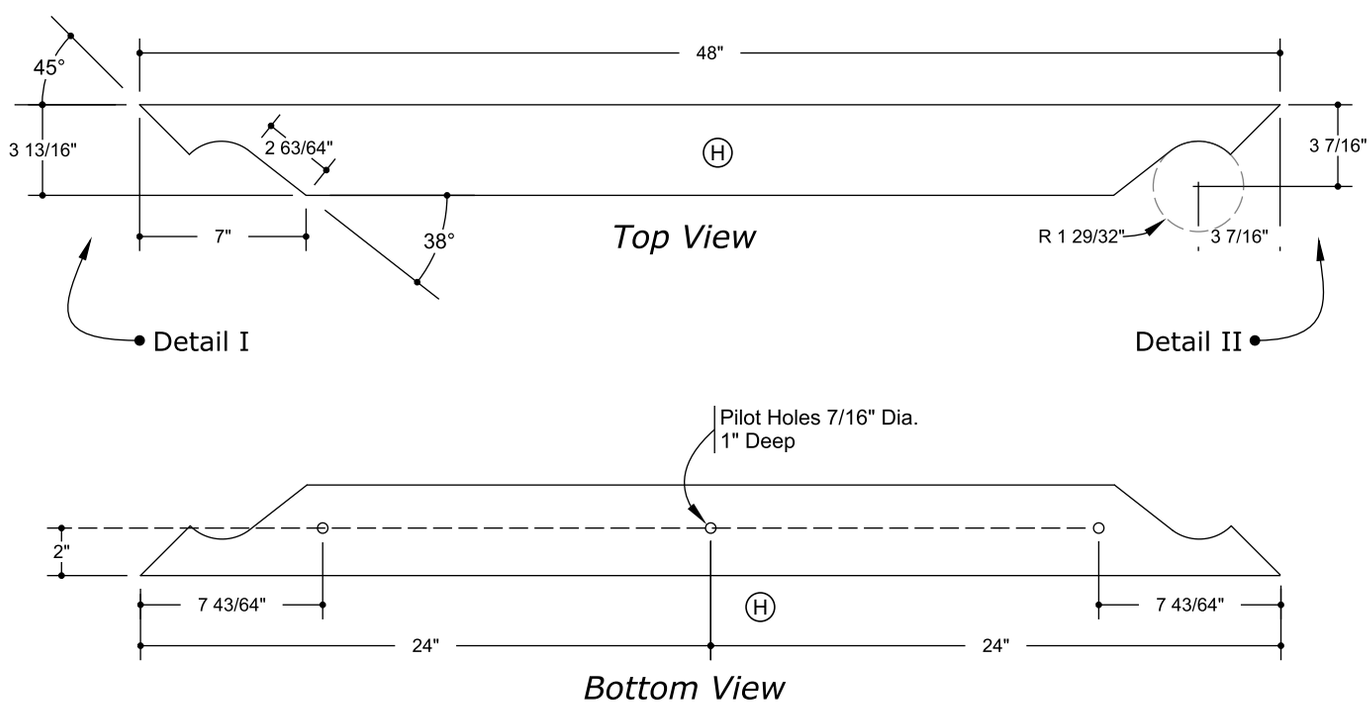


Fig. 16: End rails

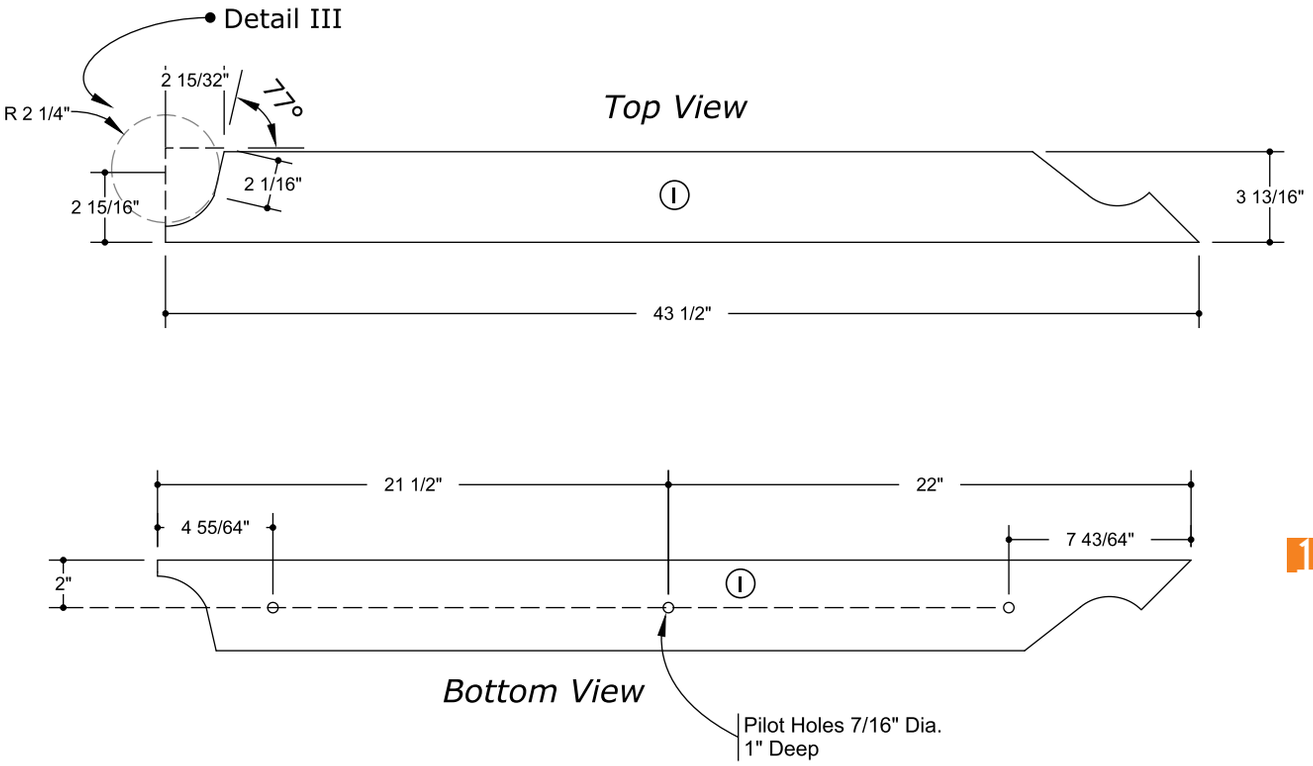


Fig. 17: Side rails 1

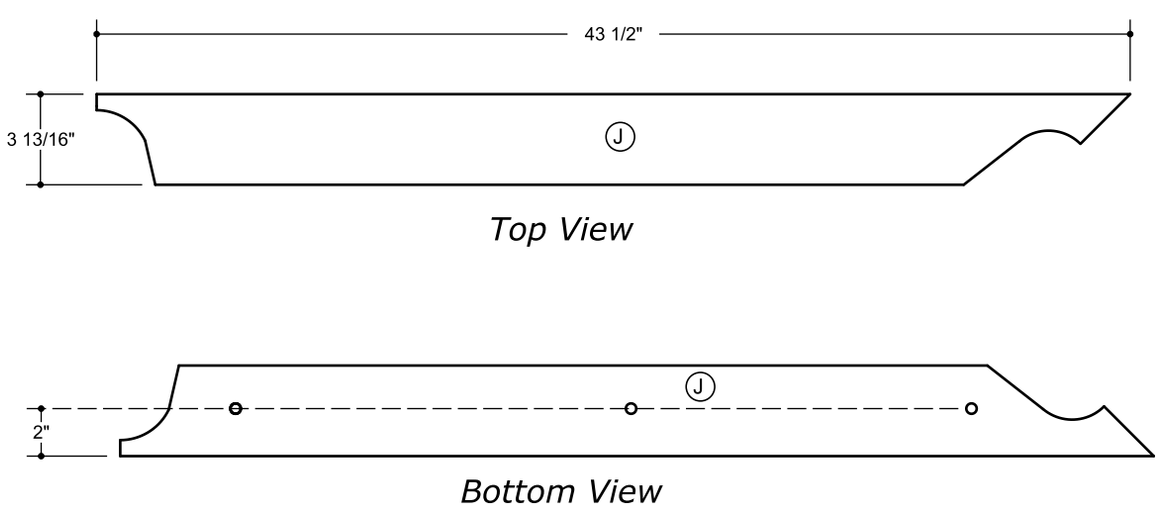


Fig. 18: Side rails 2

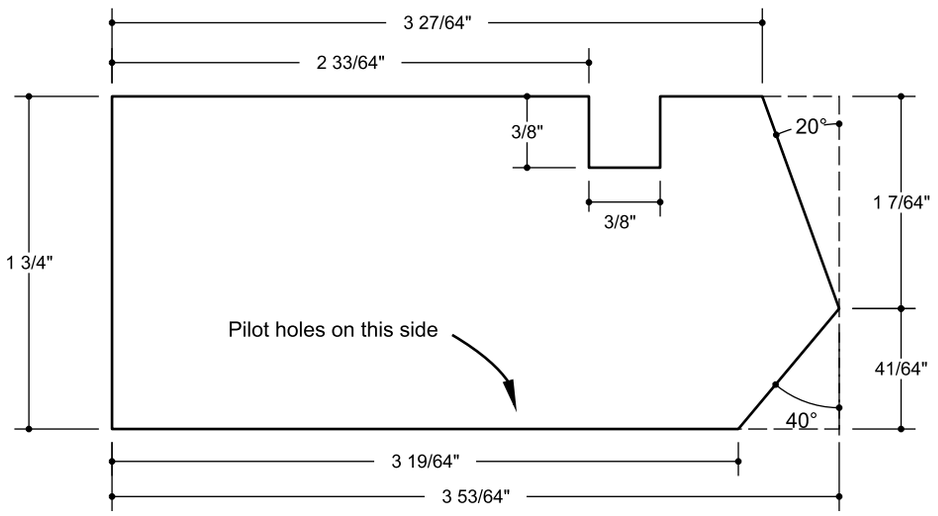


Fig. 19: Side rail's cut

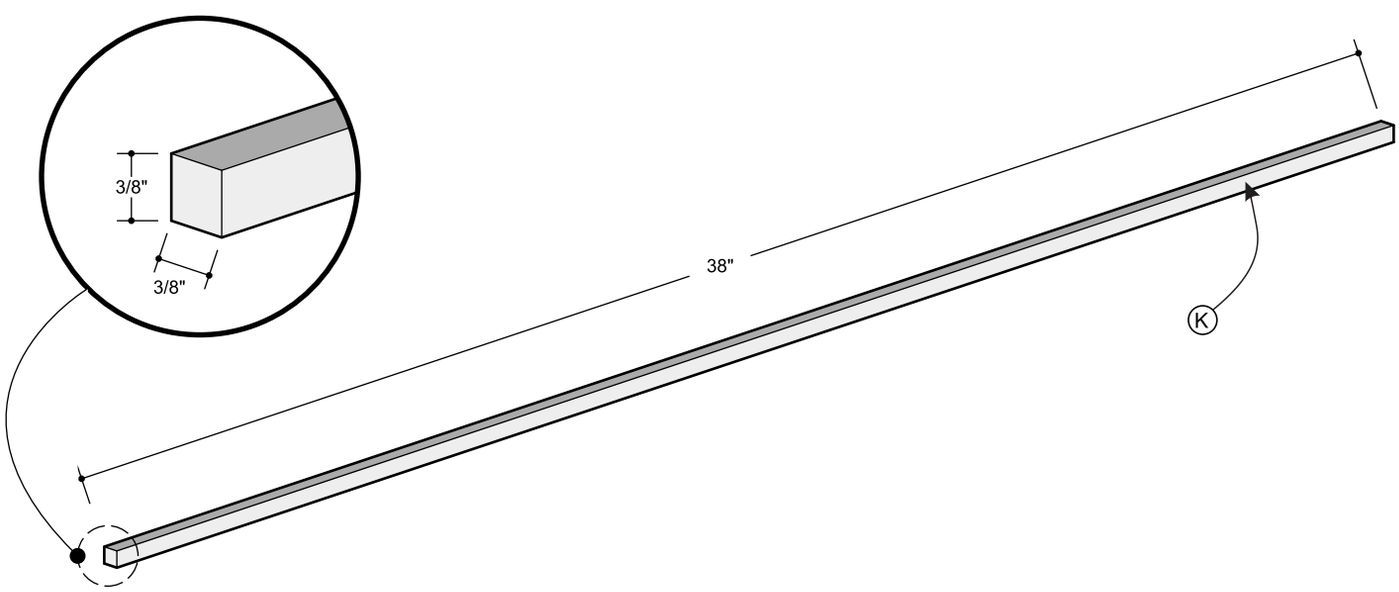


Fig. 20: Feather strips

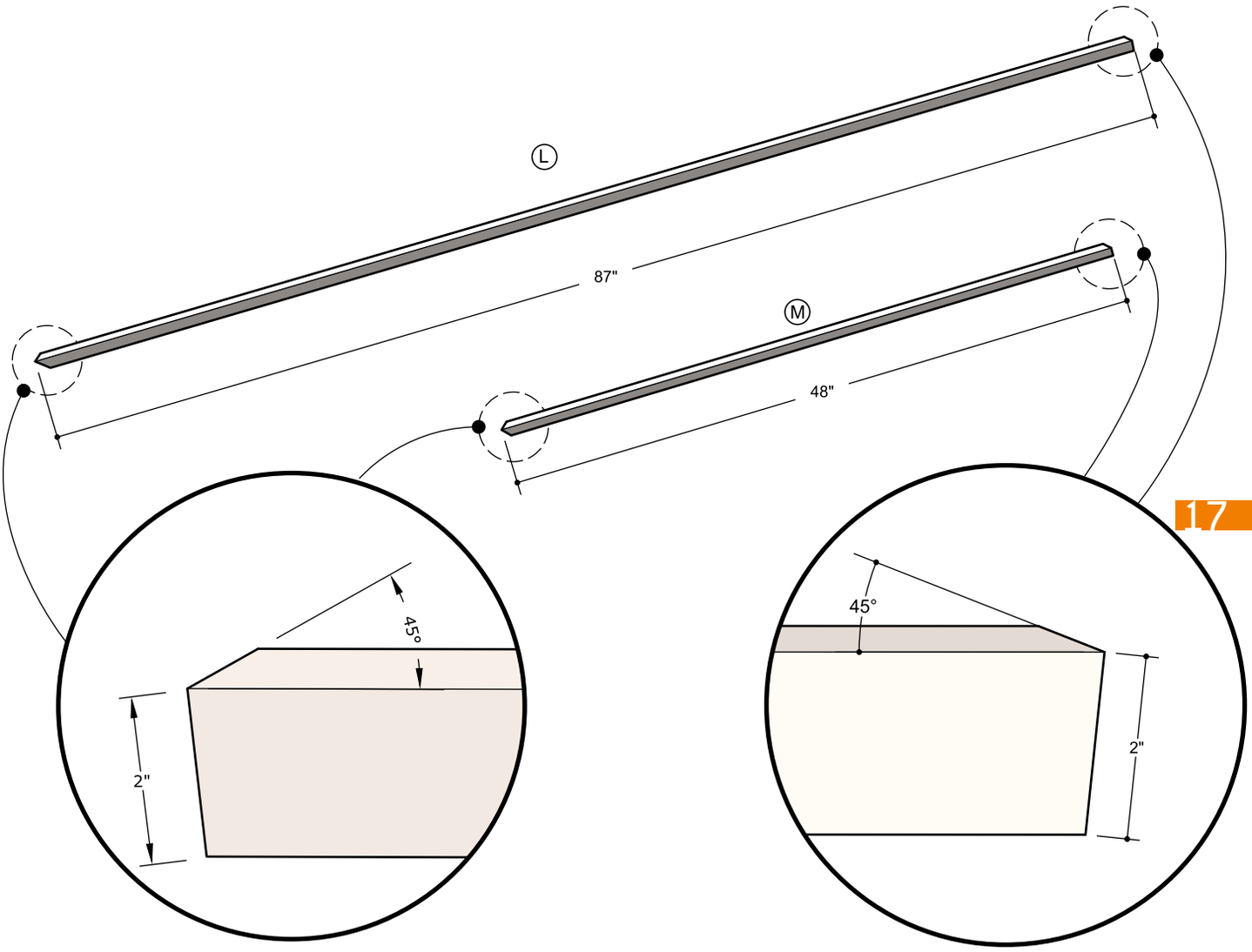
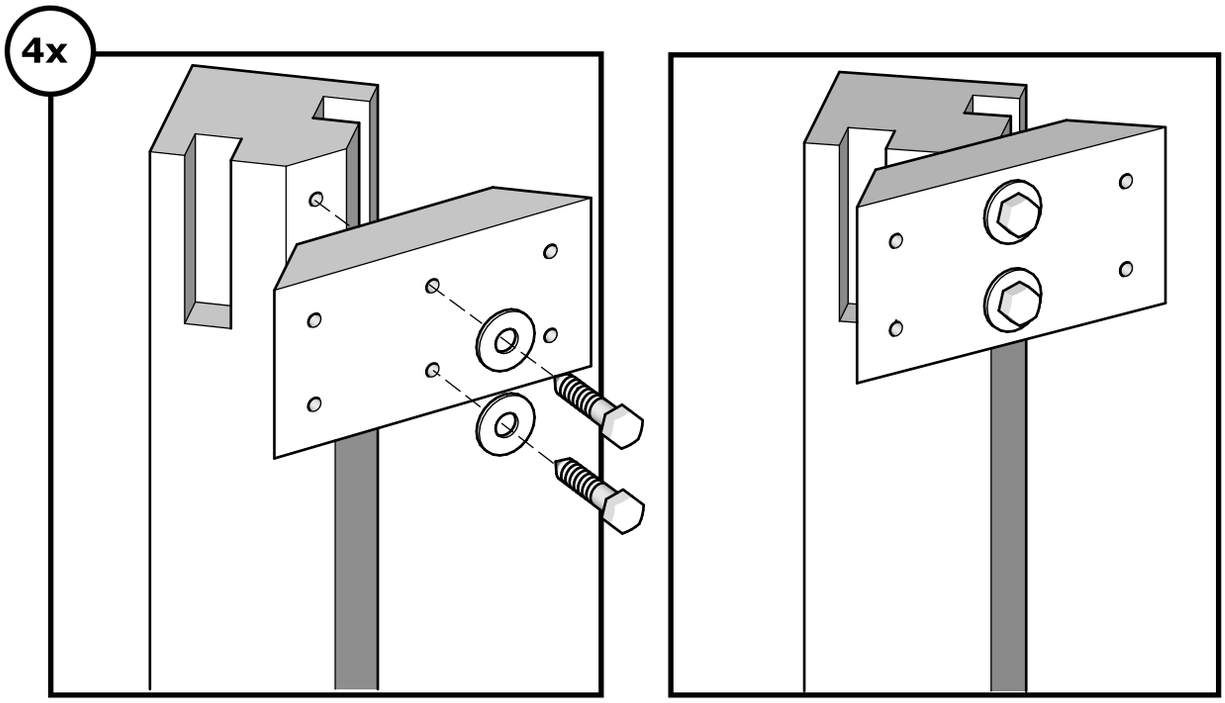


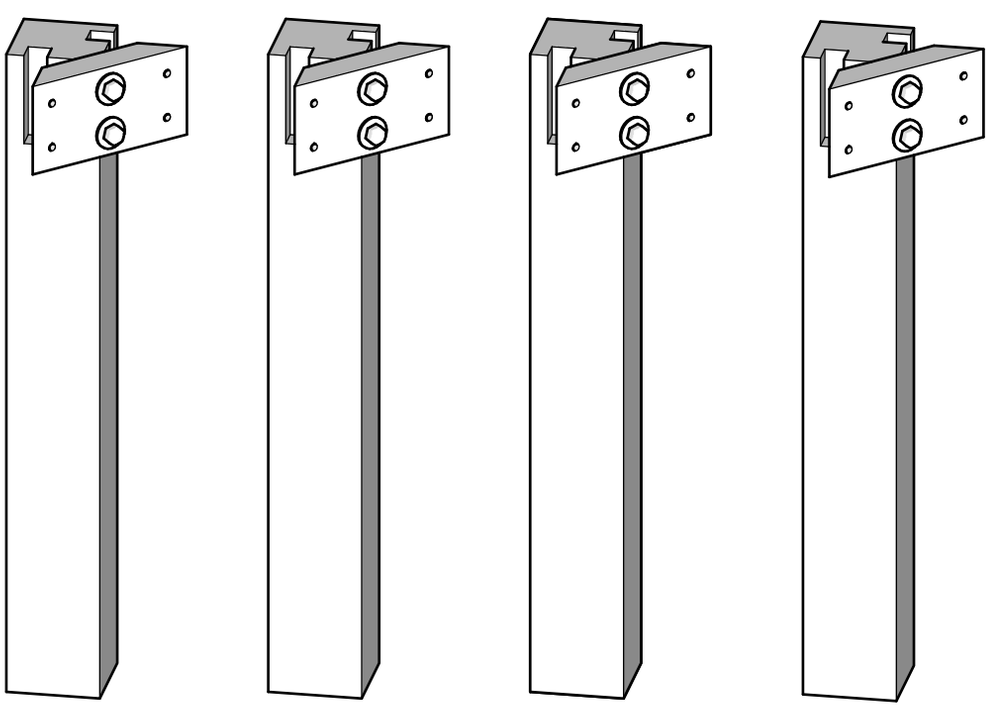
Fig. 21: Faces

3 BASE ASSEMBLY

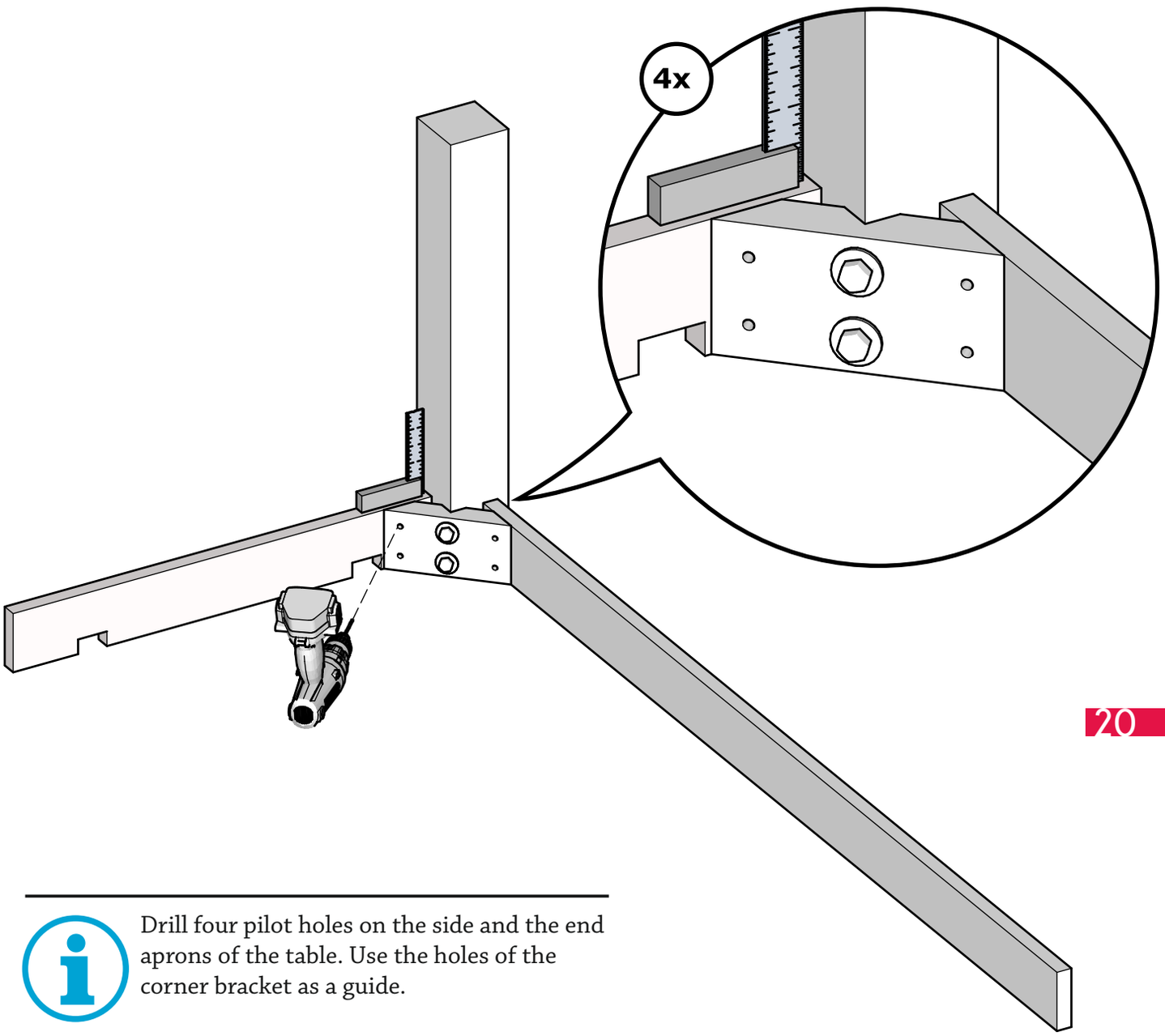
1



- Lag Bolt Hex Head, 3/8" Diameter, 2 1/2" Length, 8pcs
- Washer, 3/8" Inside Diameter, 7/2" Outside Diameter, 8pcs

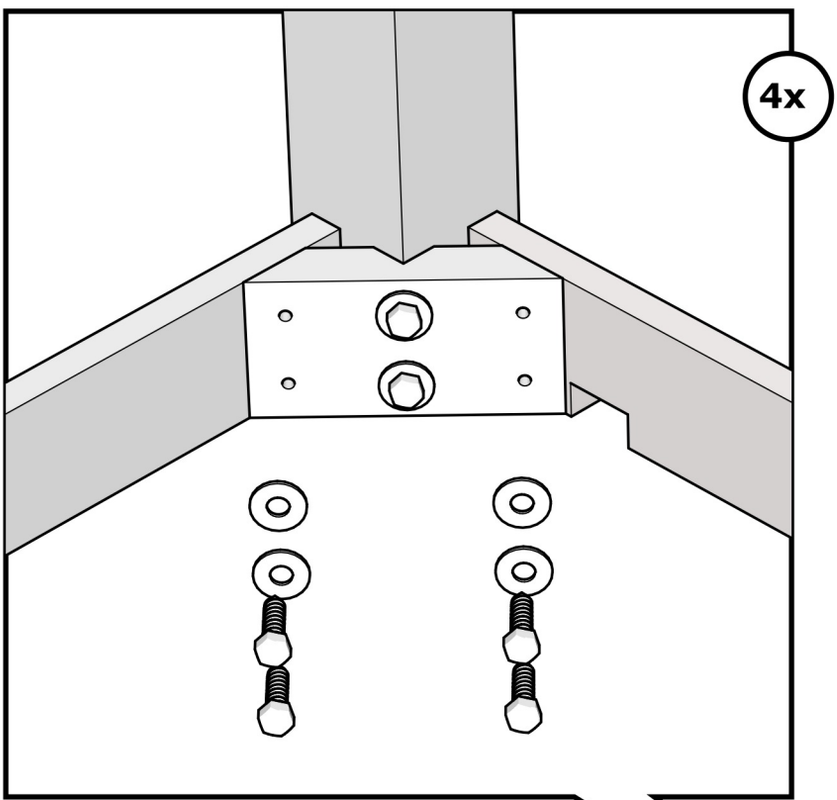


2

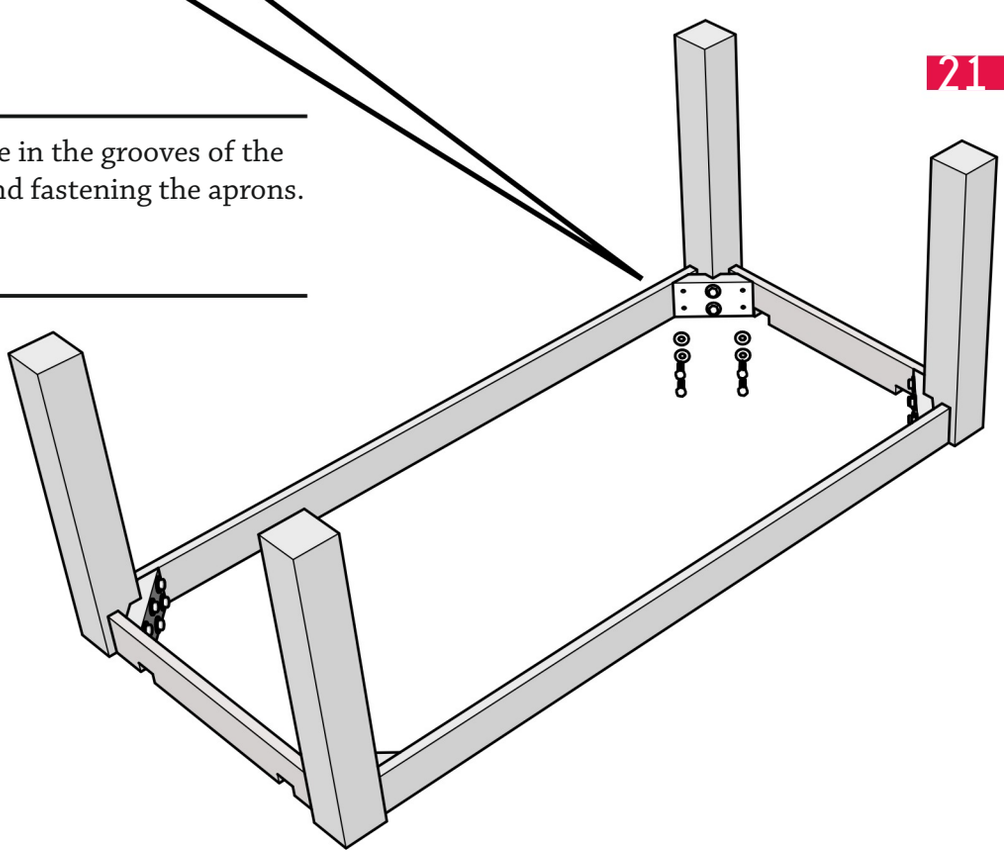


Drill four pilot holes on the side and the end aprons of the table. Use the holes of the corner bracket as a guide.

3

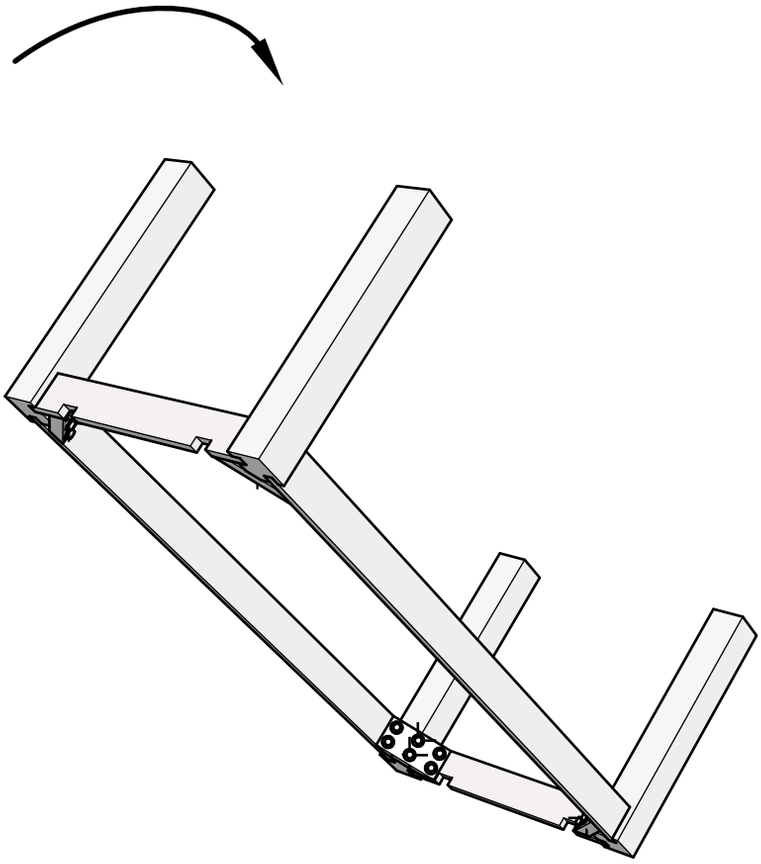


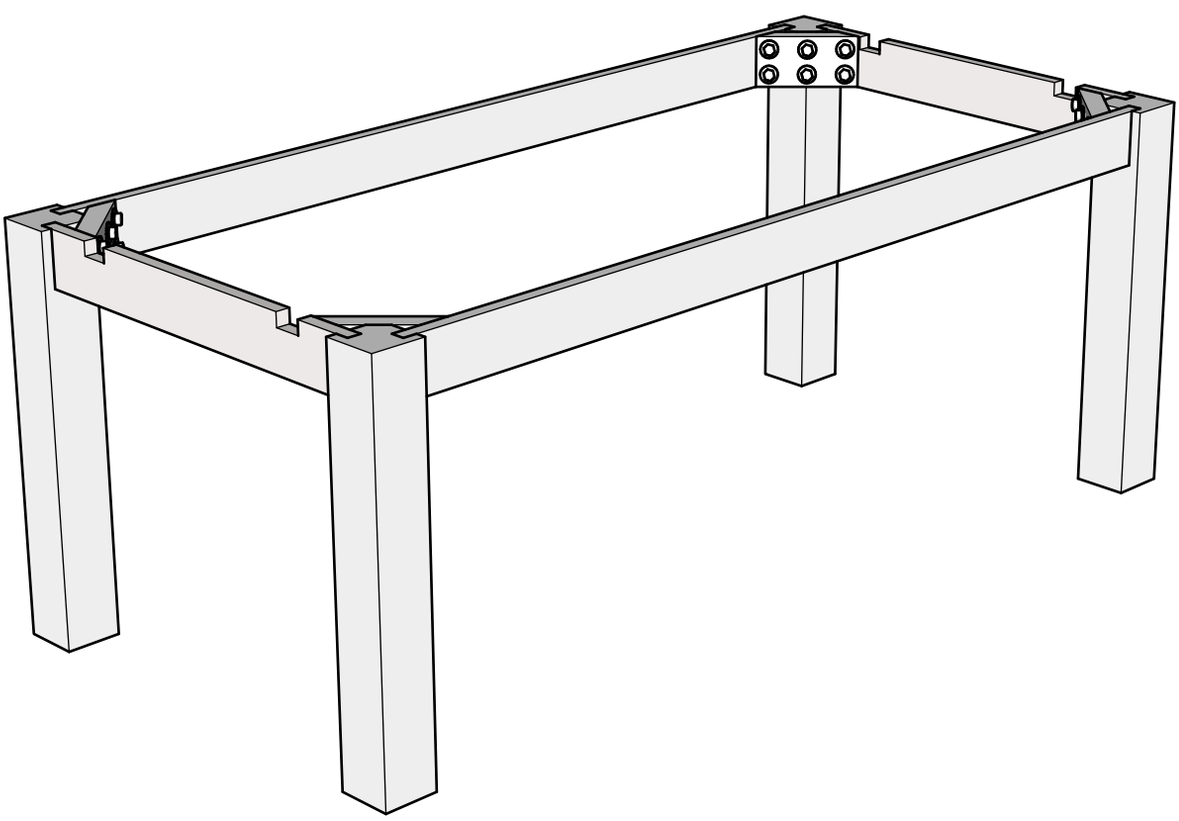
Apply PVA wood glue in the grooves of the legs before placing and fastening the aprons.



- Lag Bolt Hex Head, 3/8" Diameter, 2 1/2" Length, 16pcs
- Washer, 3/8" Inside Diameter, 7/2" Outside Diameter, 16pcs

4





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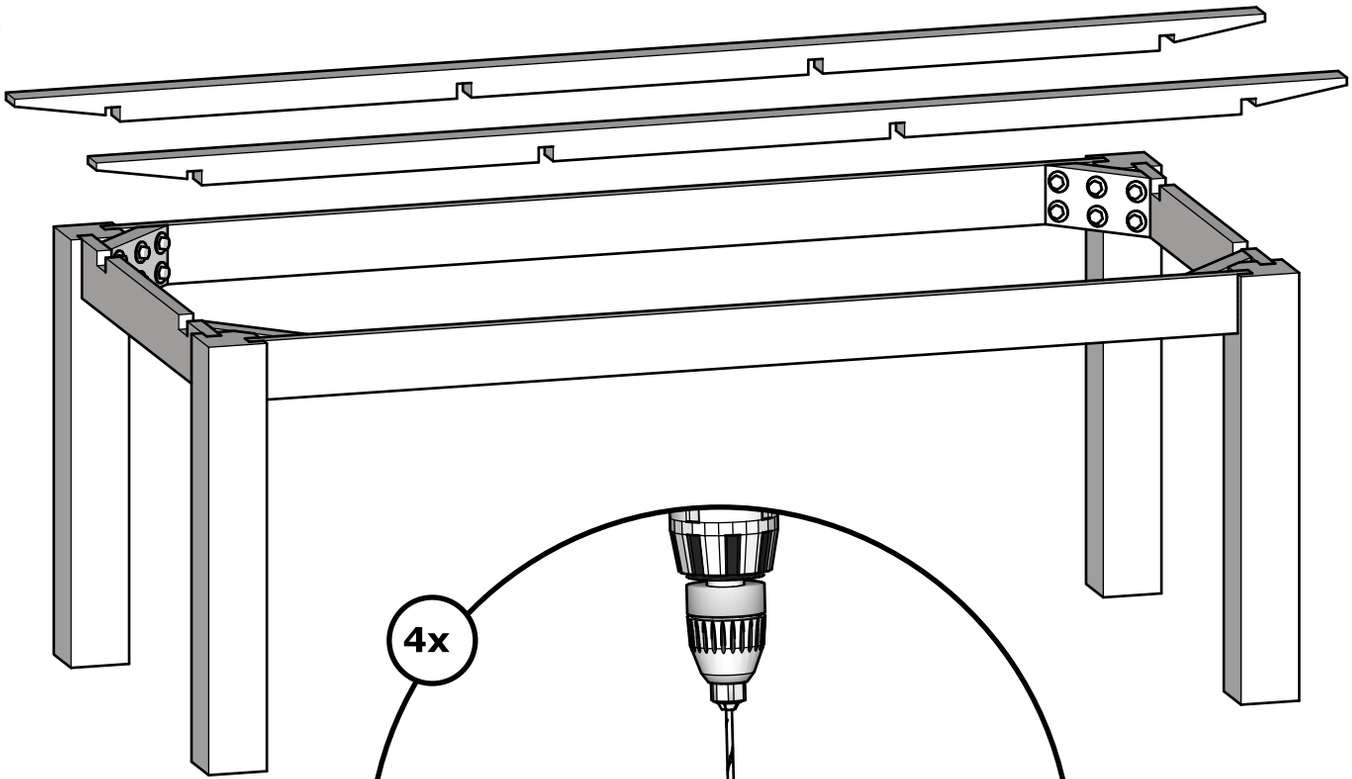

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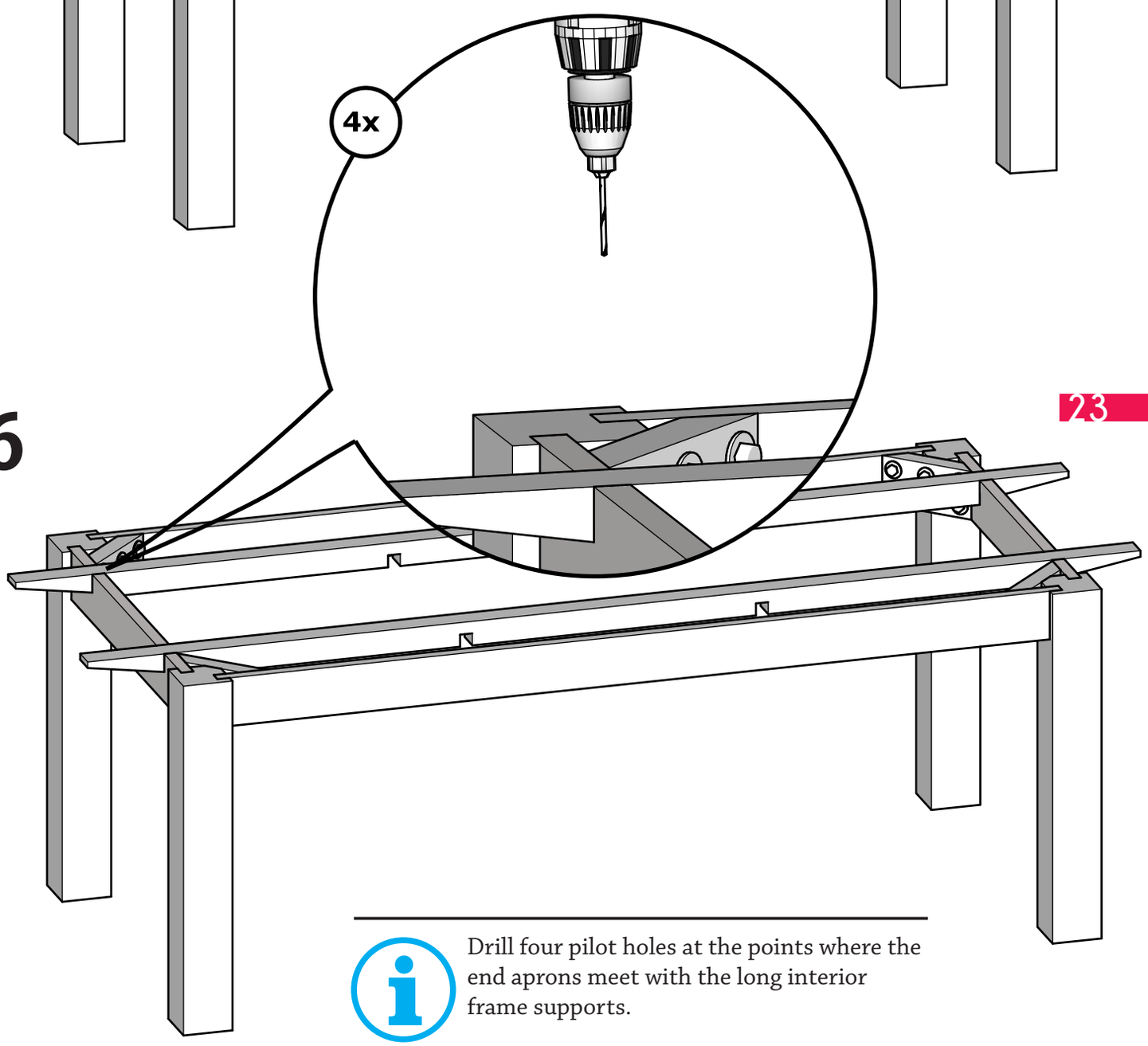
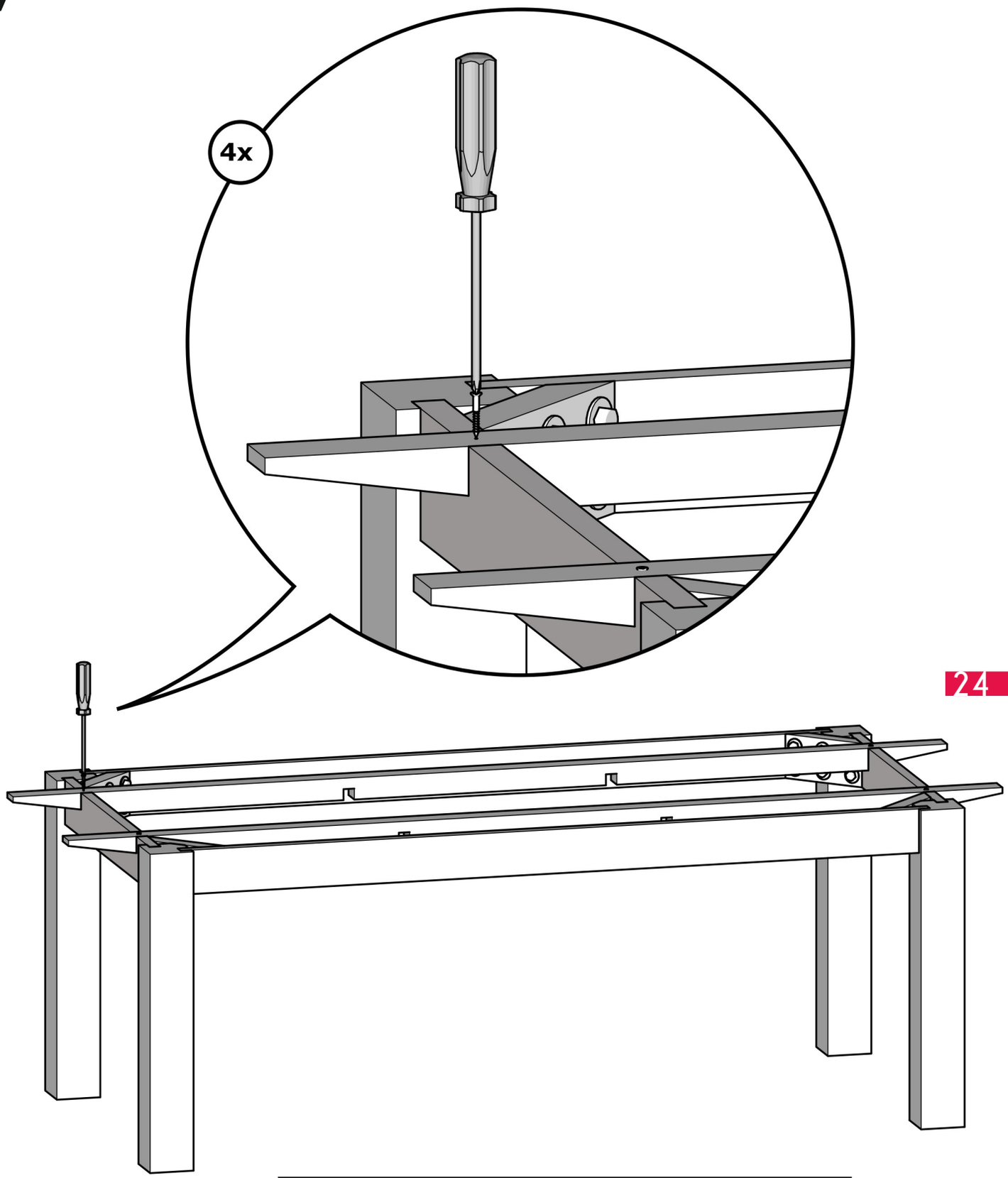


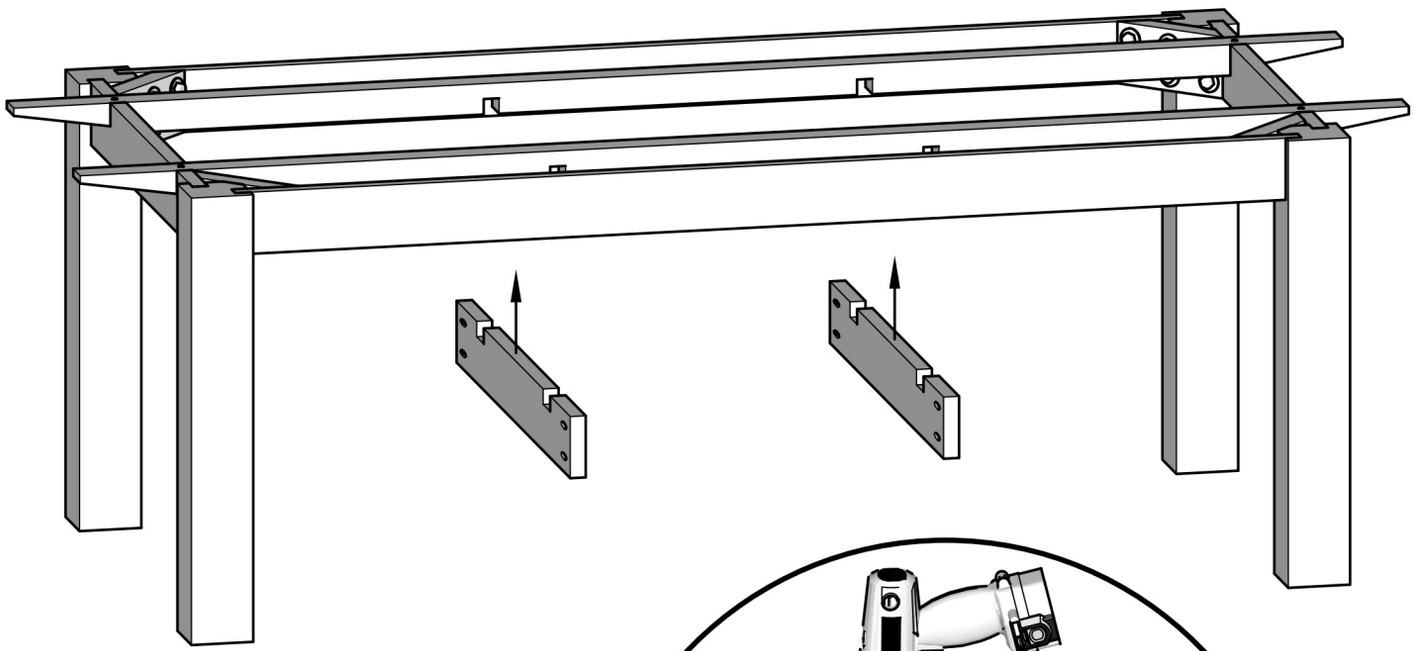
Drill four pilot holes at the points where the end aprons meet with the long interior frame supports.

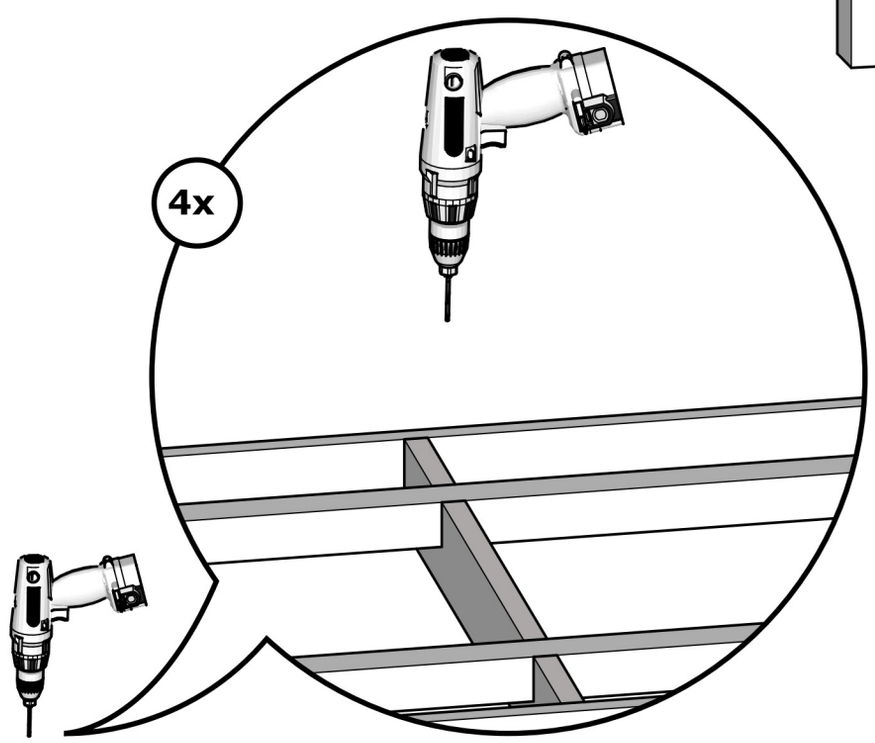
7



- Wood Screws, Philips flat head, 3/16" Diameter, 2 1/2" Length, 4pcs

8





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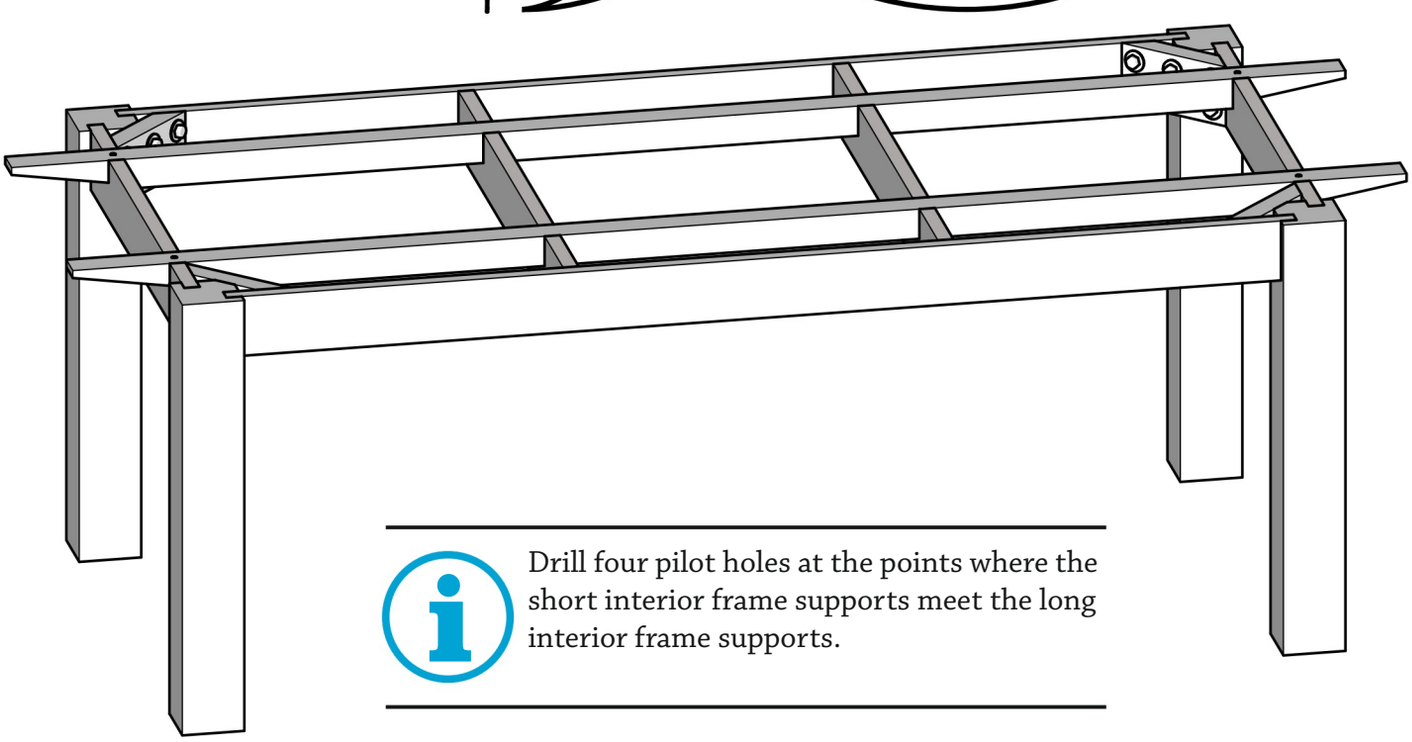
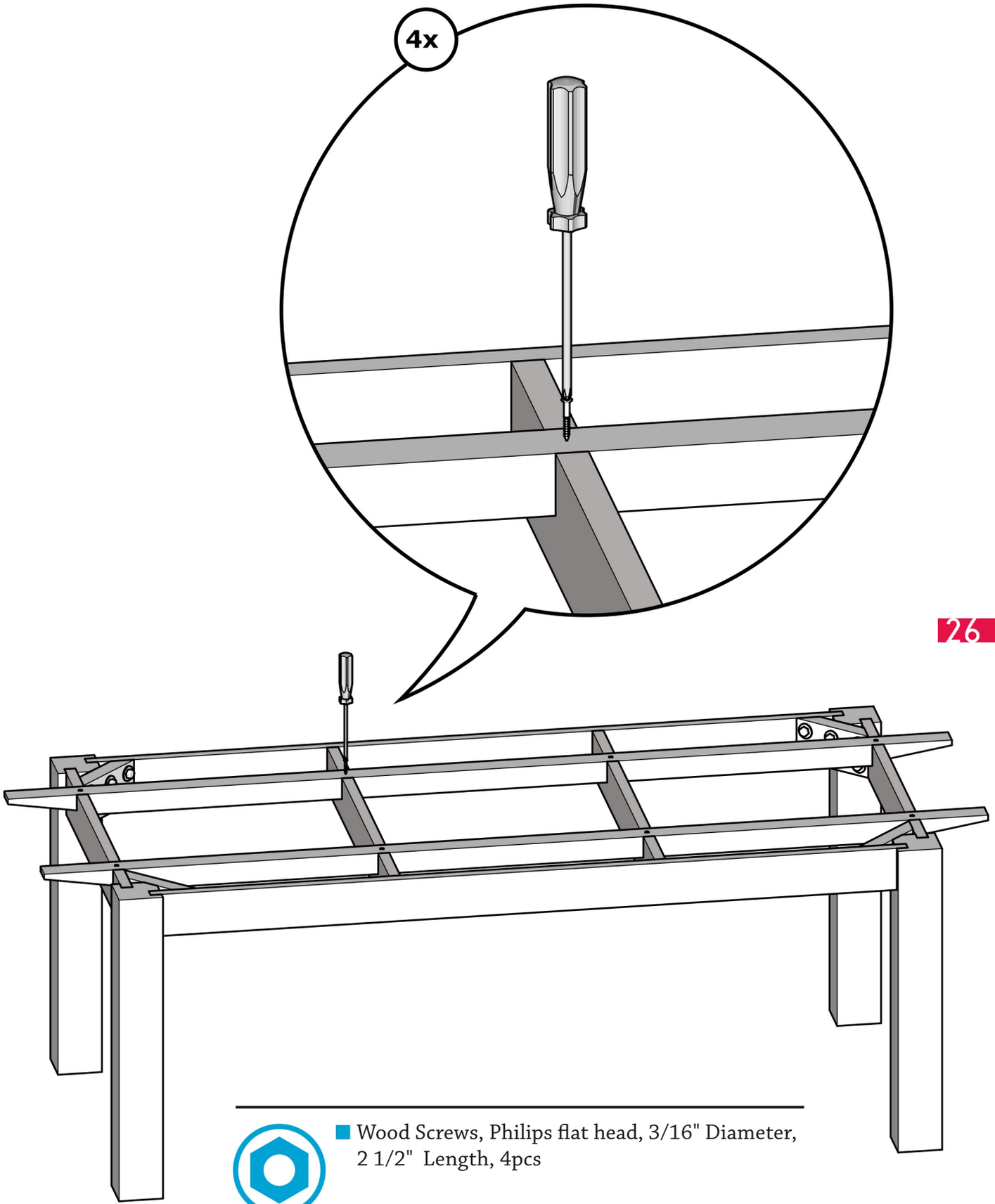


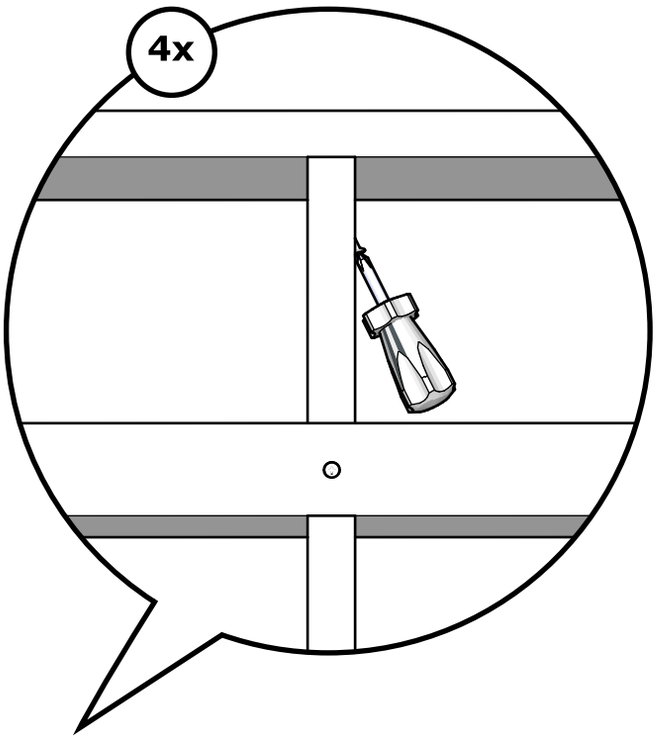
Drill four pilot holes at the points where the short interior frame supports meet the long interior frame supports.

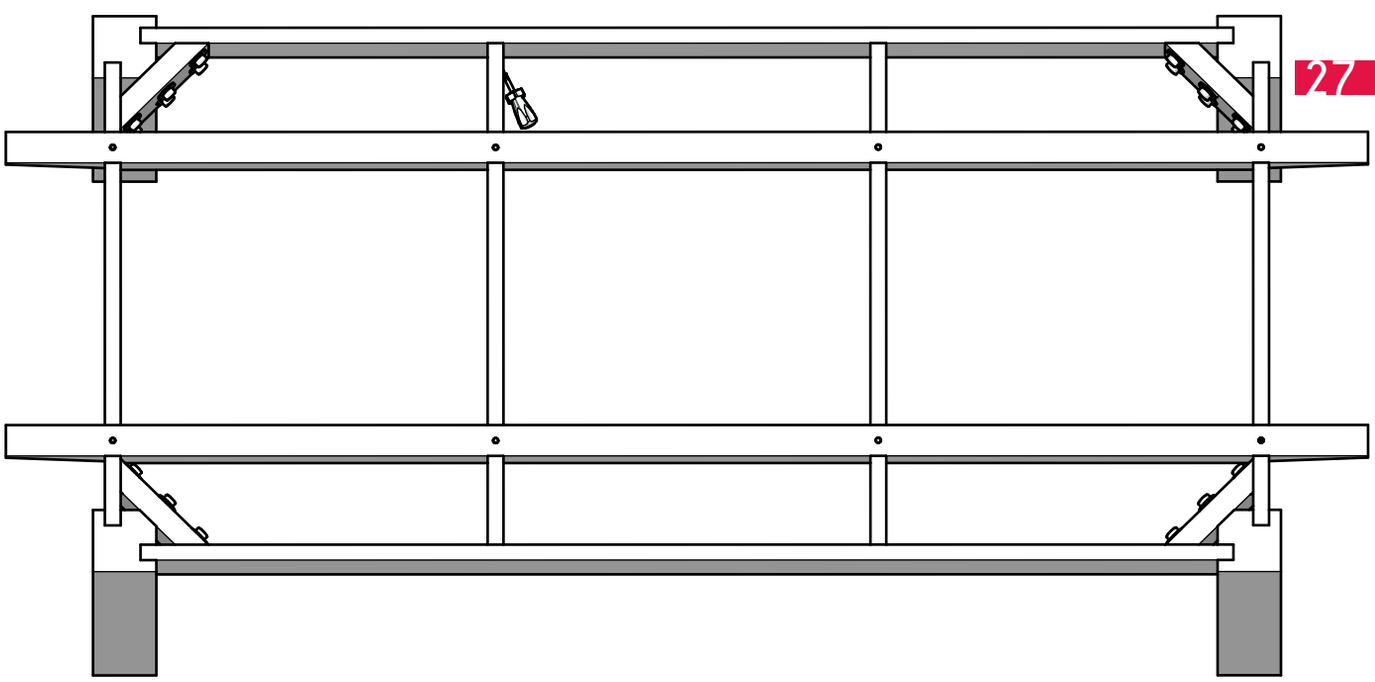
10



- Wood Screws, Philips flat head, 3/16" Diameter, 2 1/2" Length, 4pcs

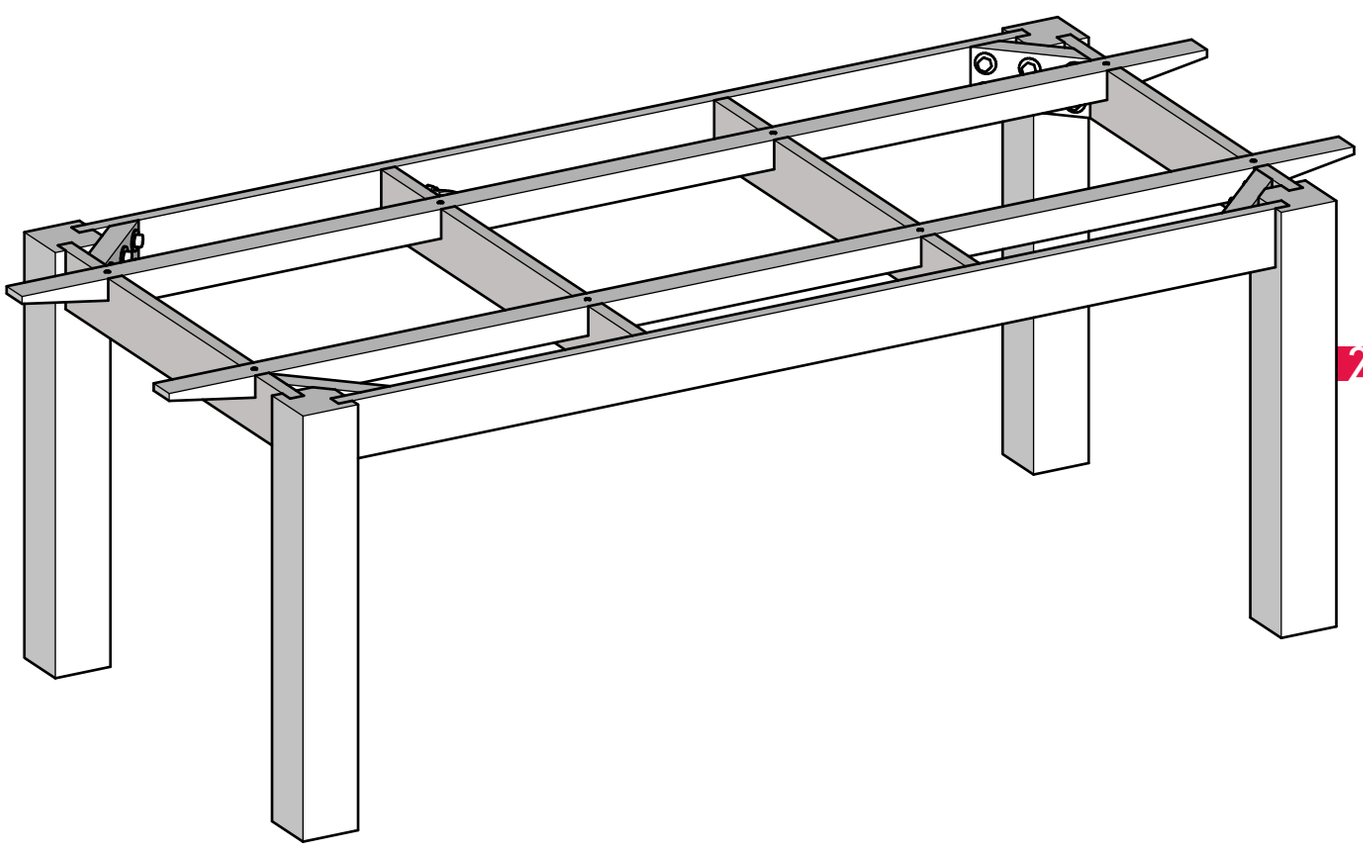
11





Wood Screws, Philips flat head, 3/16" Diameter, 2" Length, 4pcs

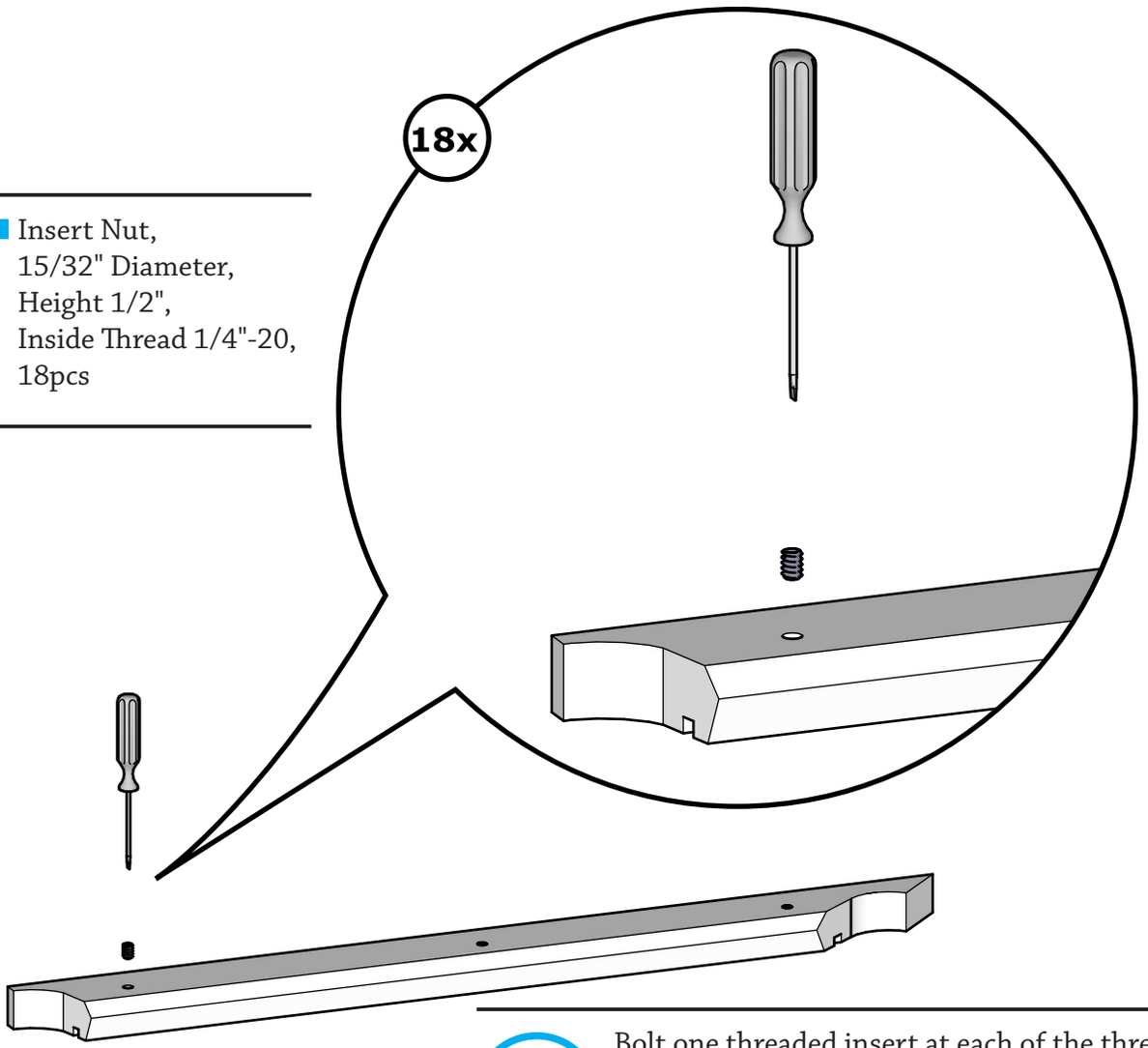
12



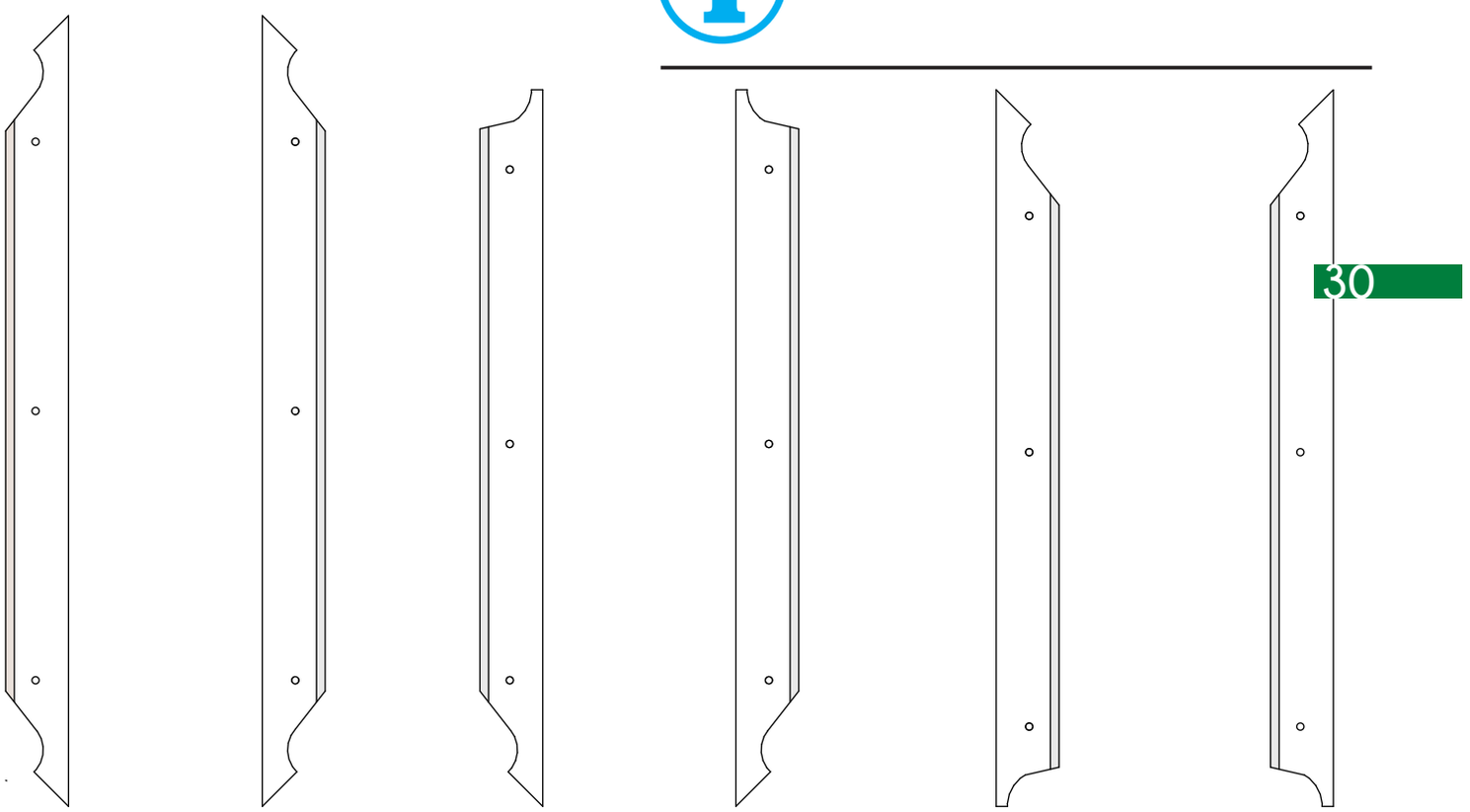
4 TABLETOP ASSEMBLY

13

- Insert Nut,
  15/32" Diameter,
  Height 1/2",
  Inside Thread 1/4"-20,
  18pcs



Bolt one threaded insert at each of the three holes on the side rails.



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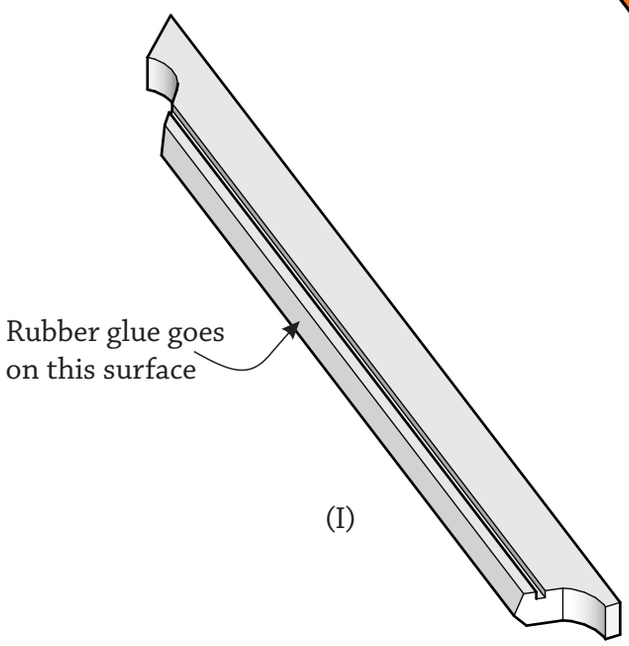
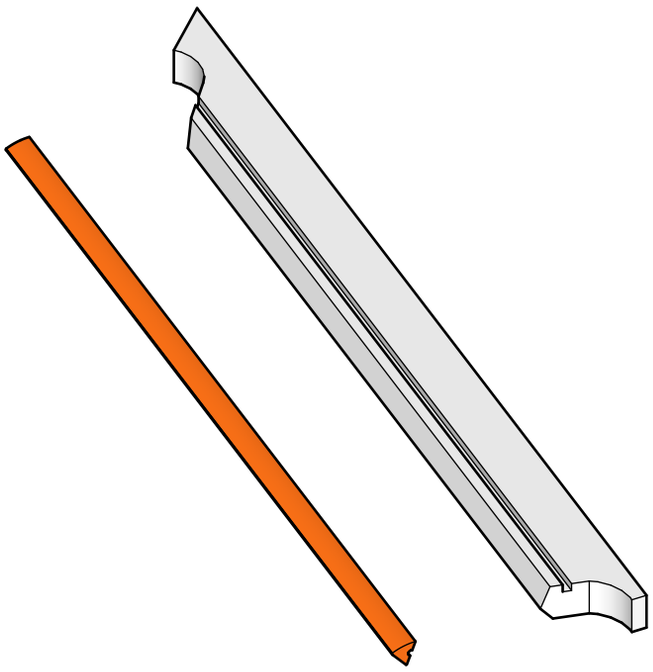
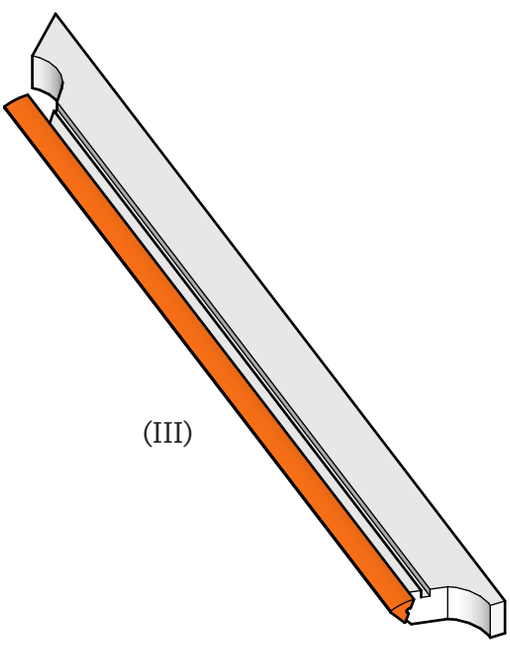


(I)

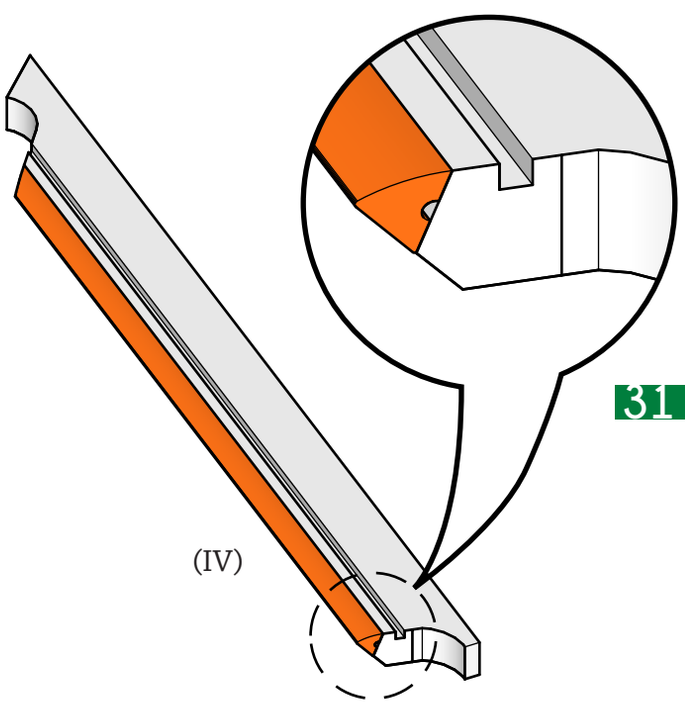


(II)

Apply rubber glue on the surface on which you will attach the K-66 Cushion Rubber (I) . Put on the cushion rubber and press firmly so that it fits well and on a straight line (II), (III). After the rubber glue dries, cut the piece of the cushion rubber in a way that follows the line of the pockets (IV).



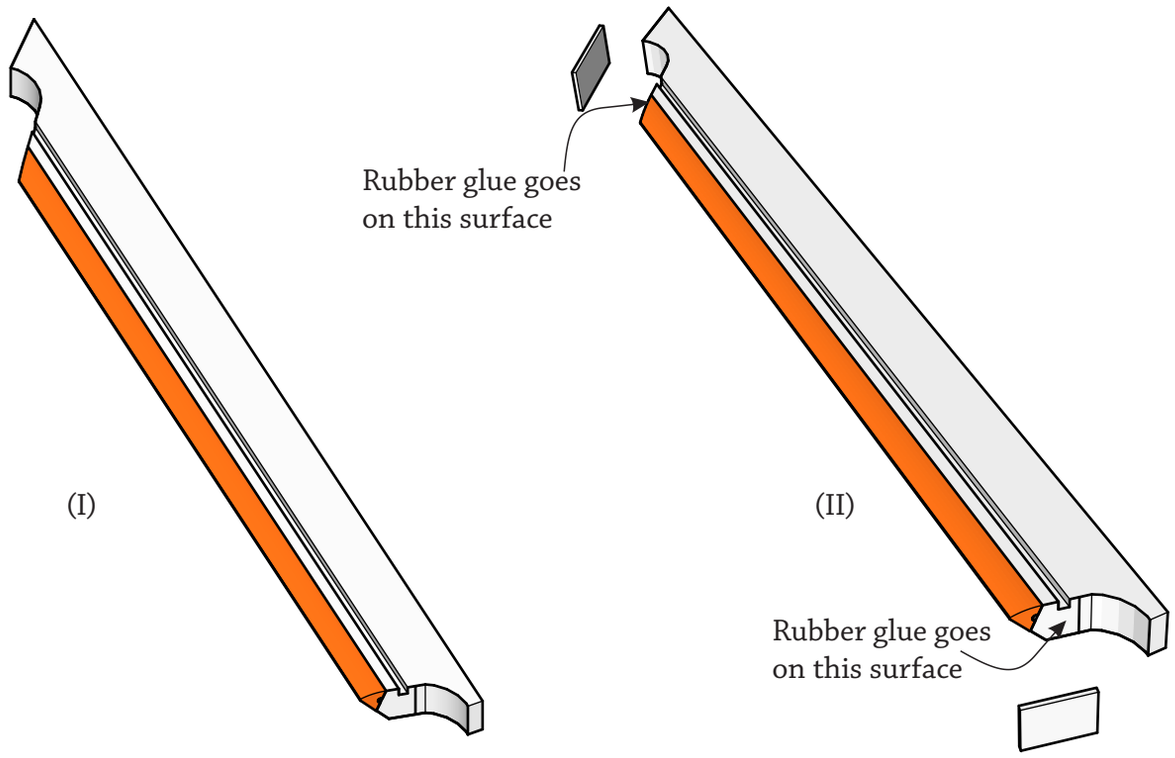
(III)



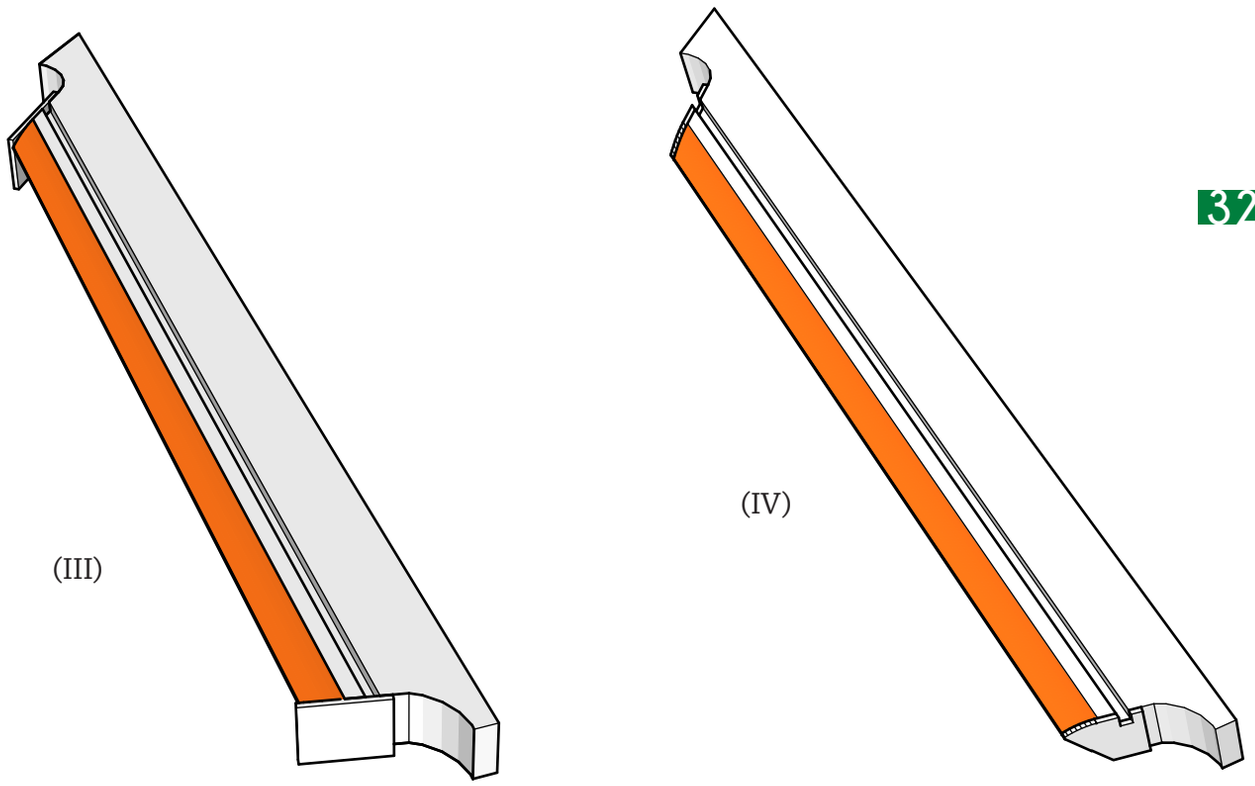
(IV)

- Rubber glue
- K-66 Ruber Cushion
- Set of cushion facings

15



Apply the rubber glue on the opening of the pocket on the side rails (II). Put and press the cushion facings so that they cover the entire surface of the cushion rubber but also part of the wood, as it appears in the figure (III). After the rubber glue dries, cut the piece of the cushion facing that stands out of the side rail (IV).



16

FELT INSTALLATION

The process of installing the felt on the MDF bed and the side rails is a challenging task and requires a lot of attention. The felt is 78” wide and 100” long. The MDF bed and the side rails will be covered with that. For this reason, the way that the felt must be cut, is the one that appears in the plan that follows.

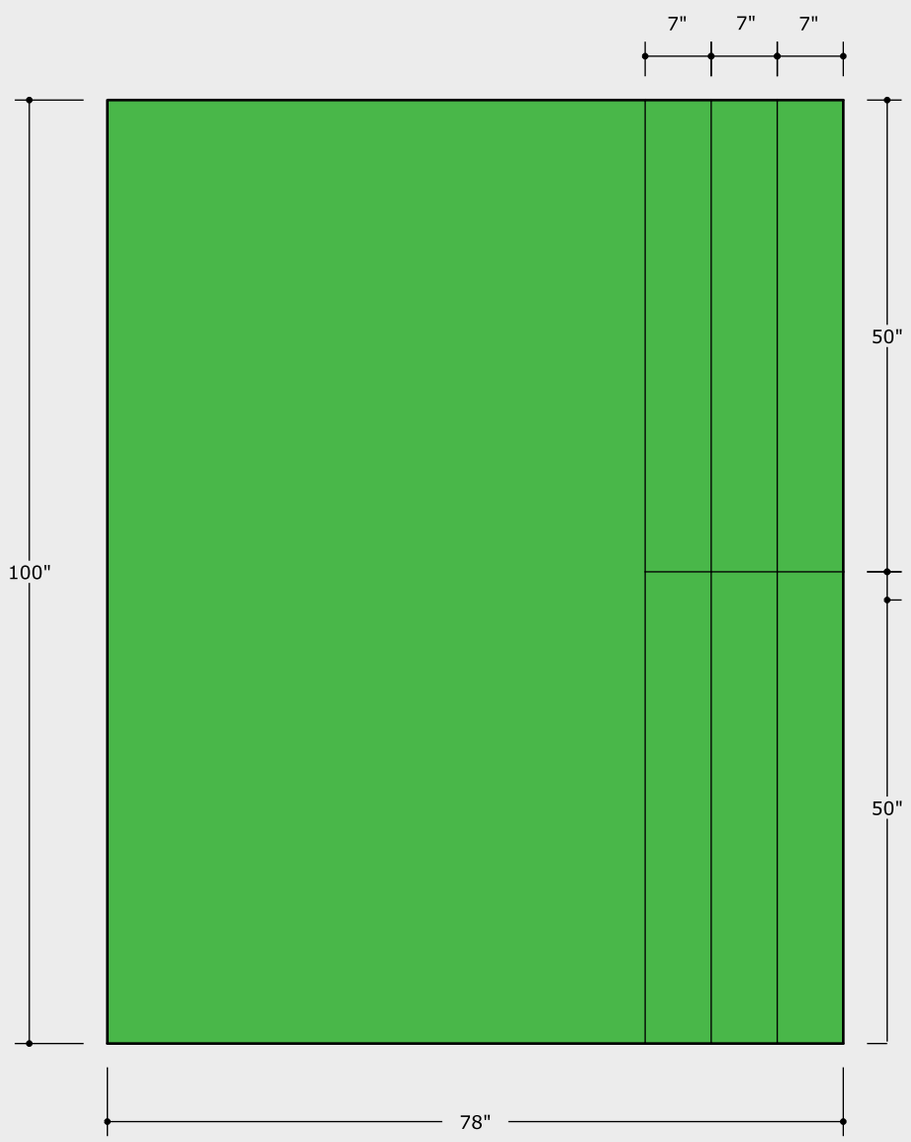


Fig. 22: Felt cutting plan

16

FELT INSTALLATION ON MDF PLAYING SURFACE

1 Put the cloth on the MDF playing surface so that it doesn't have any puckers and follows the lines of the table. That means, it must be squared and have the same excess on all its sides.

2 Start with the head-end and affix the cloth stapling two staples in the center. Continue with the edges of this side stapling every 3" and manipulating the felt as necessary to keep it straight as you continue stapling.

3 Having finished with the head-end move on to the foot-end. Start again from the center, but this time pull hard so that the cloth outstretches and staple in two places at the center of the foot-end. Continue to the edges, stapling every 3" and outstretching the felt towards the point of driving.

4 Move now to the side. Begin from the center, stapling two staple and move on to the edges stapling every 3". You don't need to pull firmly, just keep the cloth straight.

5 On the opposite side now, begin again from the center but this time pull firmly so that the cloth is straight and staple two staples at the center. Move on towards the edges stapling every 3" and outstretching the cloth towards the point of the staple.

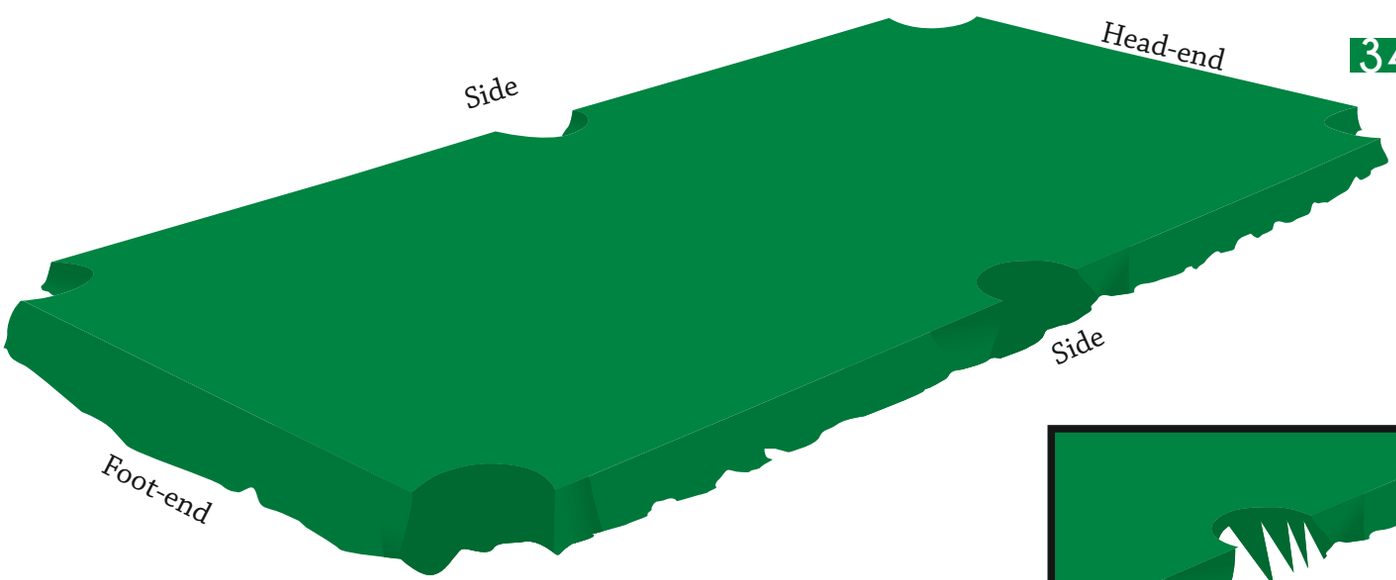
6 The cloth at this point is well stretched and fitted on the surface. However the process of the pockets at the corners and the centre of the big sides, is not over yet. Cut the fabric that is extra and wrap it just a little way into the pocket to get a feel for it.

7 Make a cut at the centre of the pocket and two more at the ones that emerge so that you have four strips, as shown in the figure. Note to start the cuts below the edge of the surface so that they are not visible (see the detail on the following drawing).

8 Outstretch the slits below the surface and staple them underneath the surface.

9 Continue the same way on the opposite side and repeat steps 7 and 8 for all the pockets.

10 Around the surface, there are 18 holes in which the bolts will pass for supporting the side rails. Carefully make a hole to the cloth at the points where these holes are.

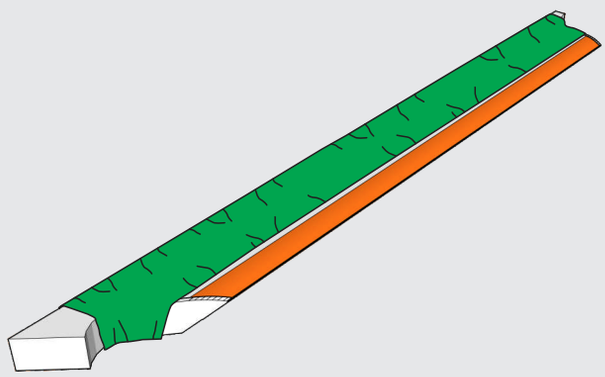


17

FELT INSTALLATION ON SIDE RAILS

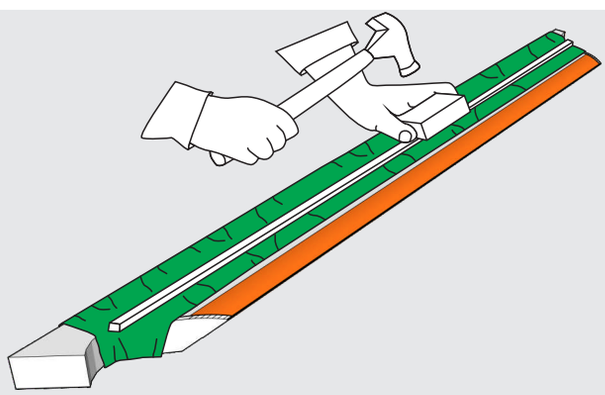
Put one edge of the long side of the felt on the slope at the upper side of the side rail so that there is excess felt at the opposite side of the rubber cushion but at the same time it must over cover the slop by 1/2” to the direction of the rubber cushion.

1



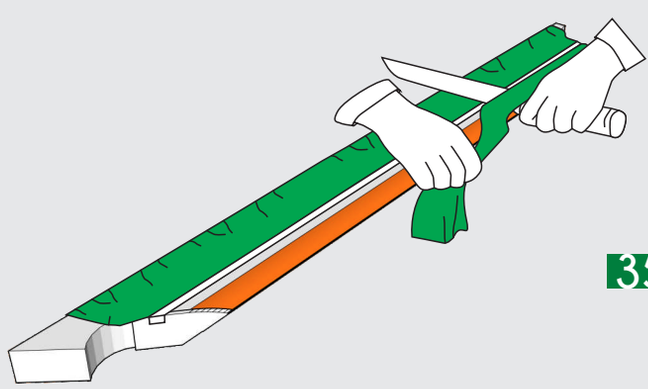
Tap the feather strip in place so that it blocks the felt. Cut the feather strip that exceeds the slope’s length towards the pockets.

2



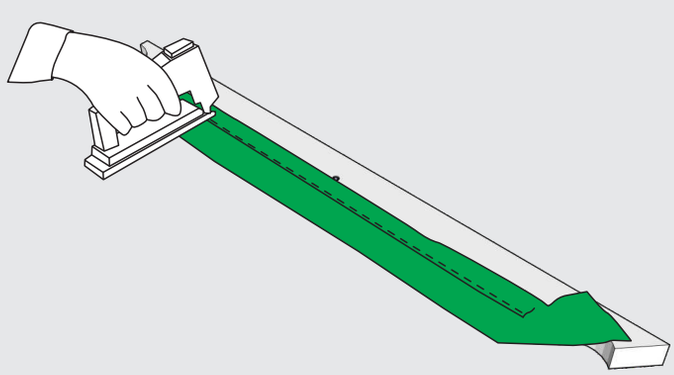
Cut the felt that excess on the side of the rubber cushion.

3



Bring the felt on the side of the rubber, covering the feather strip and stretching it firmly at the bottom of the side rail. Staple once at the center. Continue to the edges stretching and stapling every 3”.

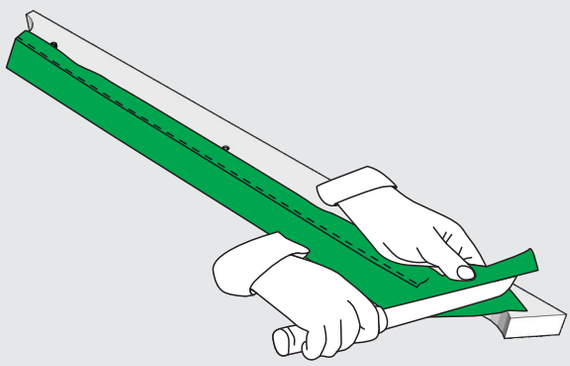
4



17

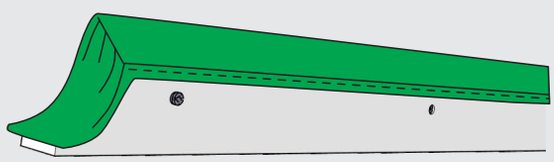
Remove the extra felt along the bottom of the side rail.

5



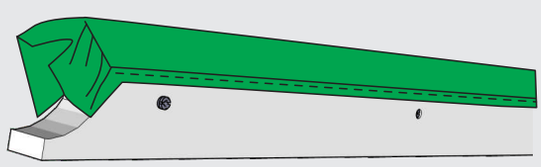
At the edge, at the point of the pocket that is, stretch the felt tightly over the nose of the cushion and staple in three places as shown in figure.

6



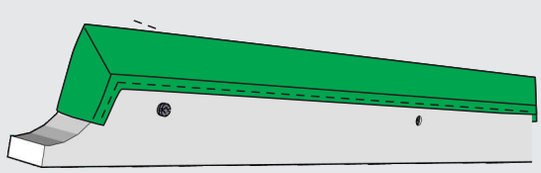
Slit the felt up to the edge of the cushion nose a, then firmly pull the small strip to the rear of the pad.

7



Hold the small fold in place and firmly fold it down over the facing. Now staple at the rear of the facing and at the bottom of the rail. Remove the extra felt.

8



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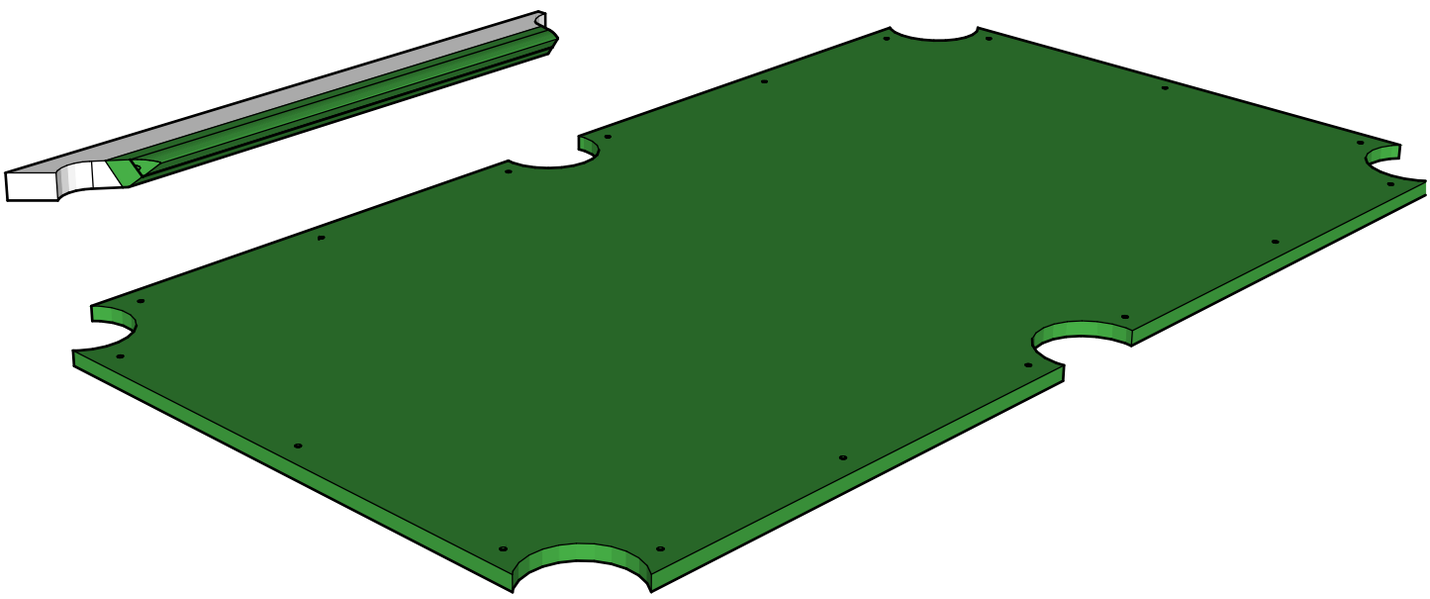
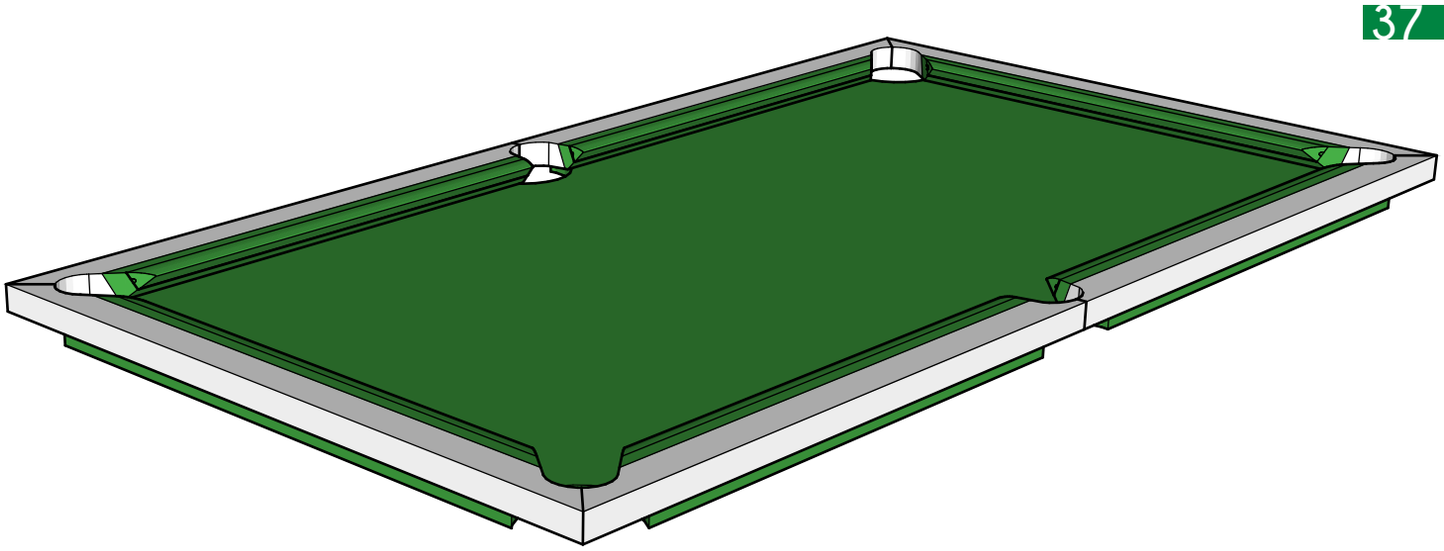


Bolt the side rails on the surface.

- Machine Screw, Socket Cap, 1/4"-20 Size, Length 1 3/4", 18pcs



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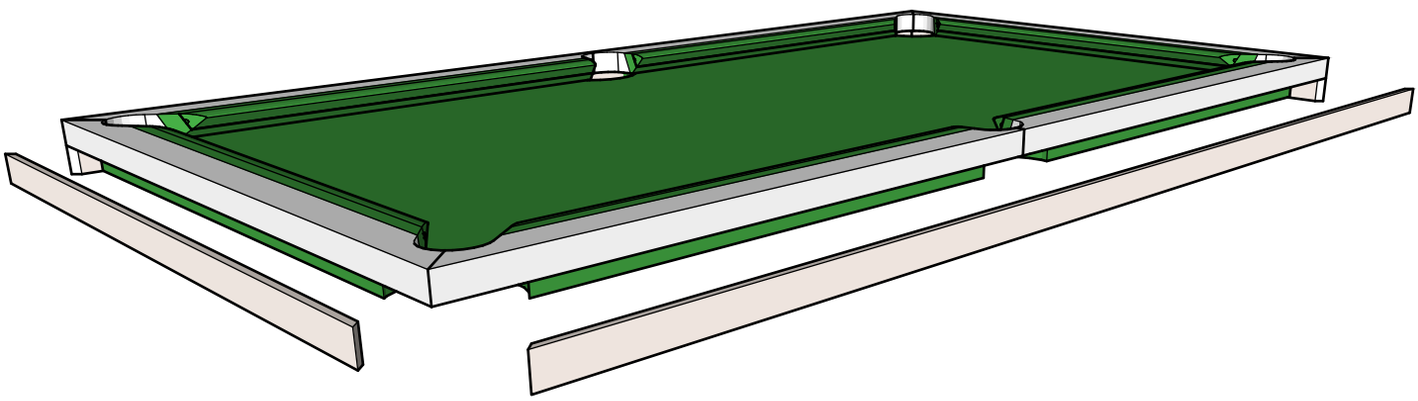
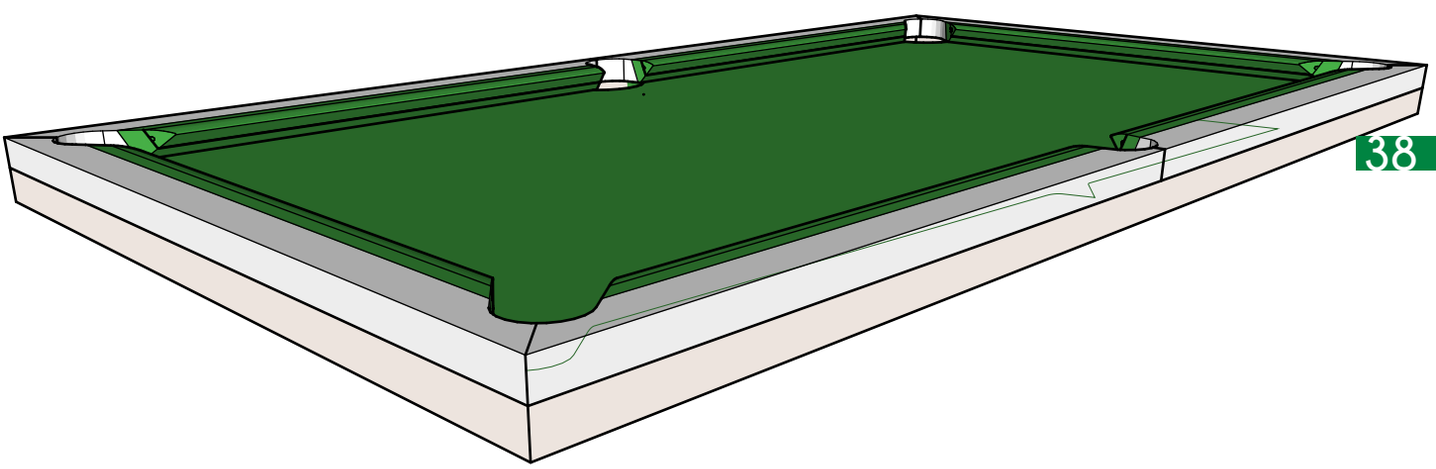


Drill three pilot holes on each side and screw the faces around the surface, under the side rails.

- Wood Screws, Philips flat head, 12pcs



5 FINAL ASSEMBLY

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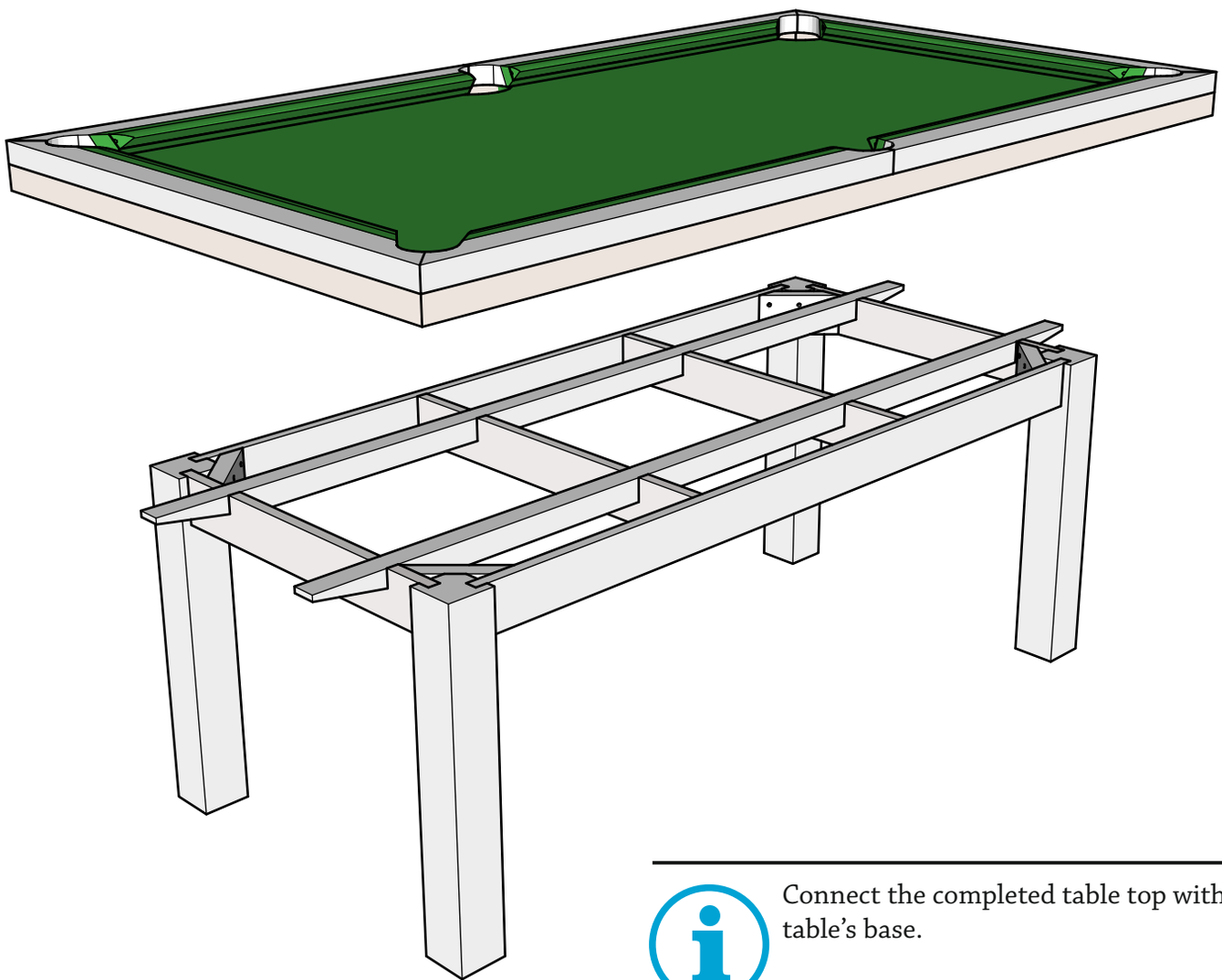

Connect the completed table top with the table’s base.

- L-shaped connecting piece, 2"X2", 4 pcs

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