

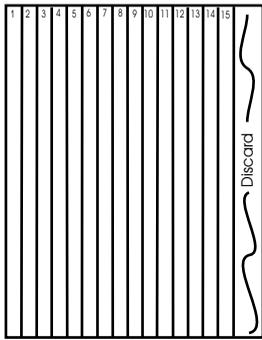
# JACOB'S LADDER -

American Letter sized Stationary

"Discovered" by Yami Yamauchi

©2000 Revised & finalized, originated in 1998

Transcribed by Colin Rowe - August 2000

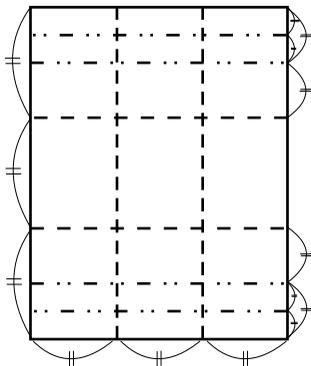


1.) Make 15 1/2"x11" Strips  
(8 1/2 x 1/2 = 17: discard 2)

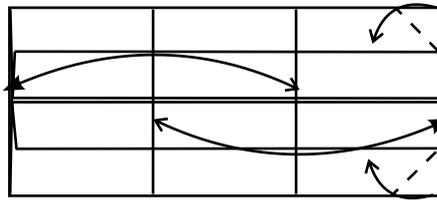


Paper : 7 sheets of Letter bond sized paper.  
One light sheet for strips  
Six bright sheets for panels

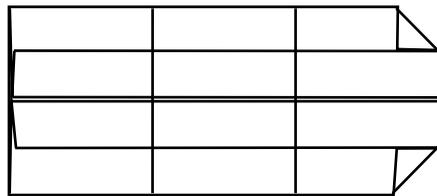
General Rules: Fold firmly and crease well! The best tool to cut straight lines is your brain. Cutting paper is always a pain in the neck. You must overcome it by practice. A ruler and A sharp "Xacto" knife will do.



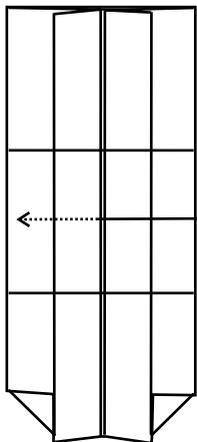
2.) Pre-crease the four valley folds, and four mountain folds to form (3).



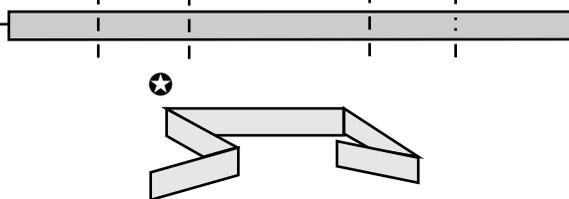
3.) Two corner folds, then fold and unfold at existing third lines.



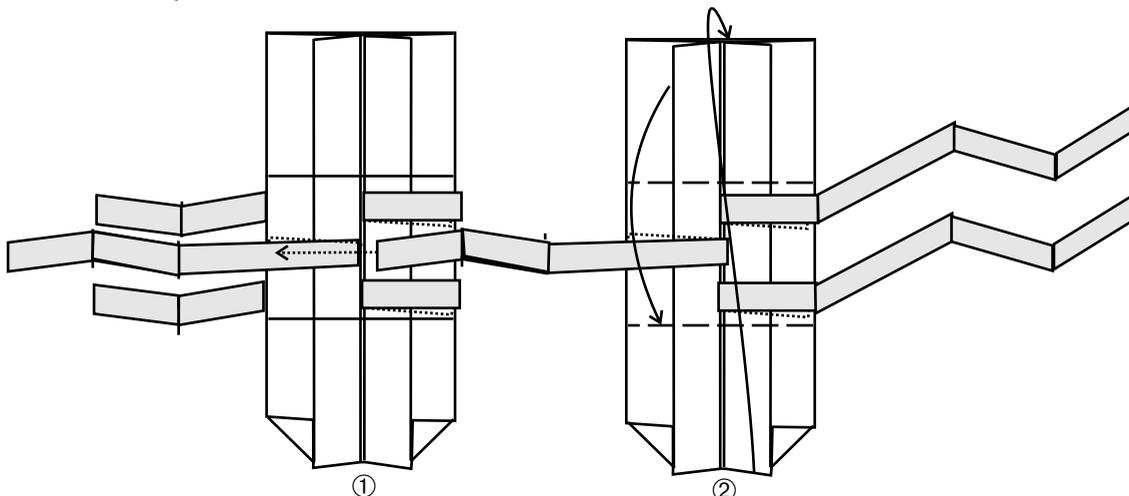
4.) Make six identical units. The right hand flap will be eventually tucked into the left end flap. Try it now so you know it will go in.



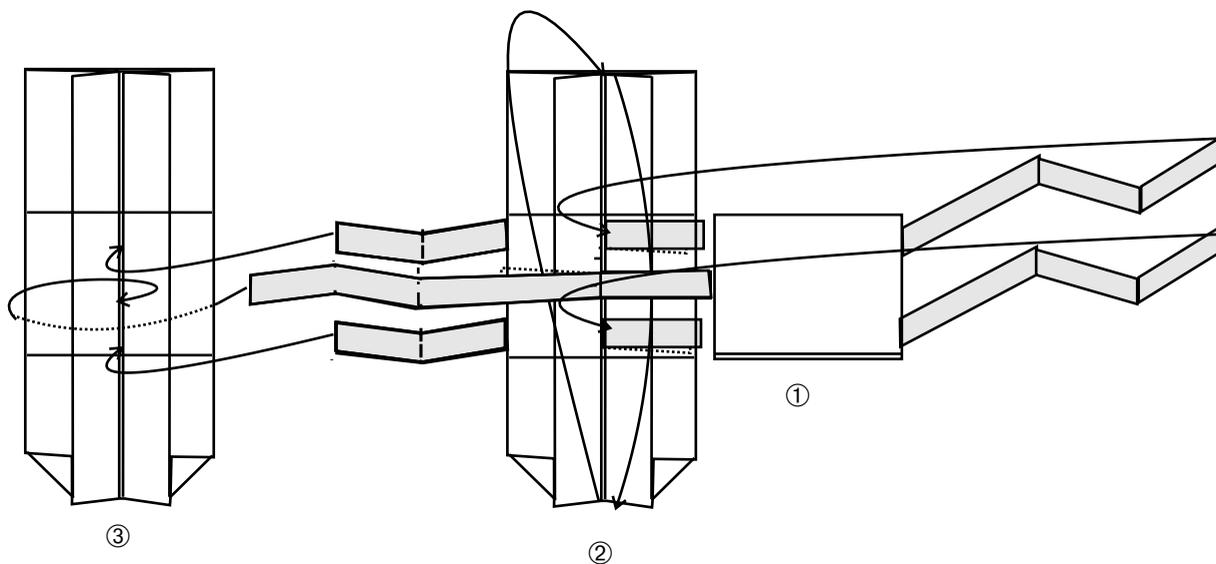
5.) Using one of the six panel units, insert the strip into the left side flap, all the way. Loosely, wrap fold, fold back the end at the centre line. The strip will form the shape as illustrated below.



Suggestion: Fold three to five strips at a time. Make the wrap folds loose, never to tight - easy and loose will make it work better.



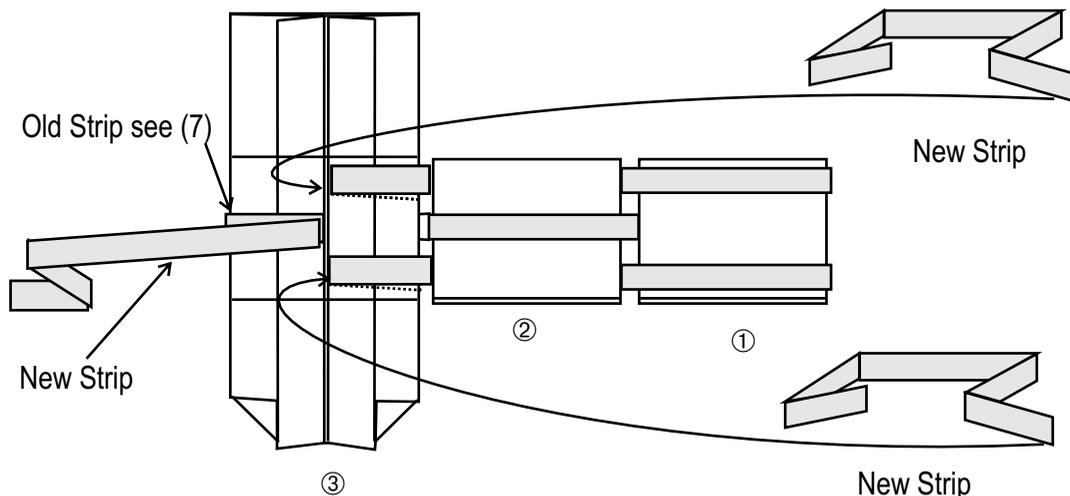
6.) Place the units ① and ②, and insert three strips in each as shown. Note the direction of the bends of each strip. After inserting left centre strip into unit ②, insert the bottom flap of ① into the upper flap to form (7).



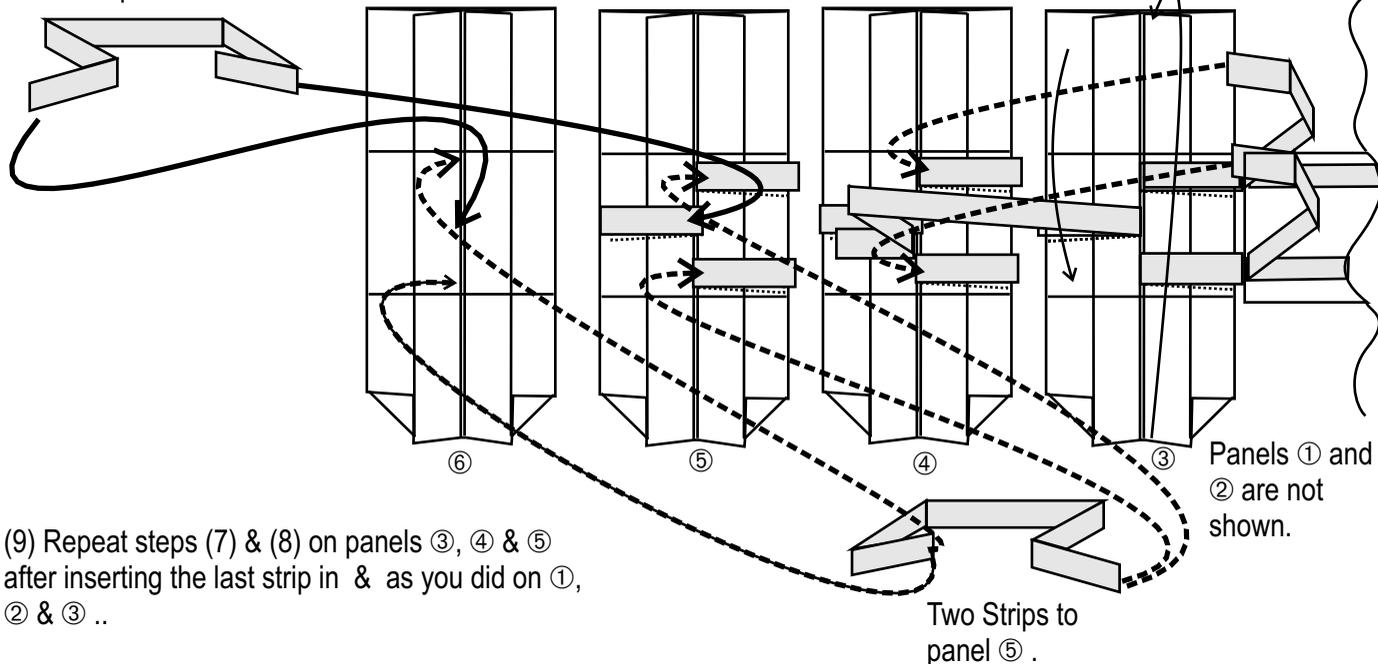
7.) Insert the two right hand strips under the right half flap of ②, then the two flaps of unit ② go under the centre strip to form (8) The centre strip from unit ② goes under unit ③ and the two other strips to be inserted under the right hand panel of unit ③ to form (8).

**Important Hint: EACH PANEL MUST BE CONNECTED WITH LOOSE TENSION. GIVE APPROX & " ( 3 or 4 mm) SPACE, BY ADJUSTING THE CREASES PREPARED AT STEP (5).**

(8) Insert the three new strips into unit ③ as illustrated underneath the existing strips. See (9) for outcome.

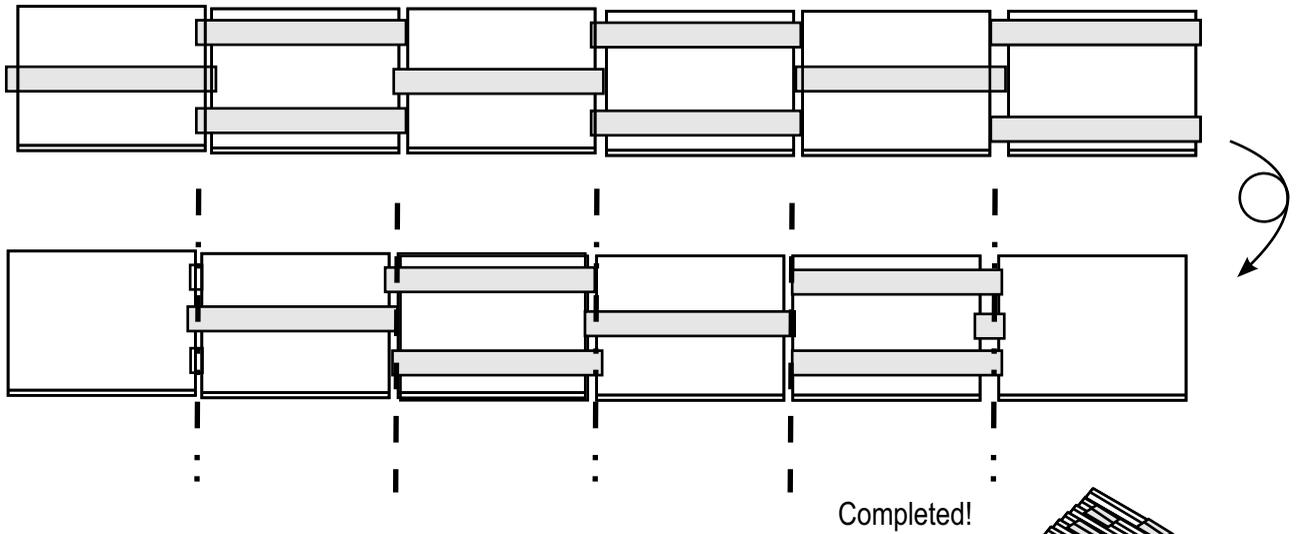
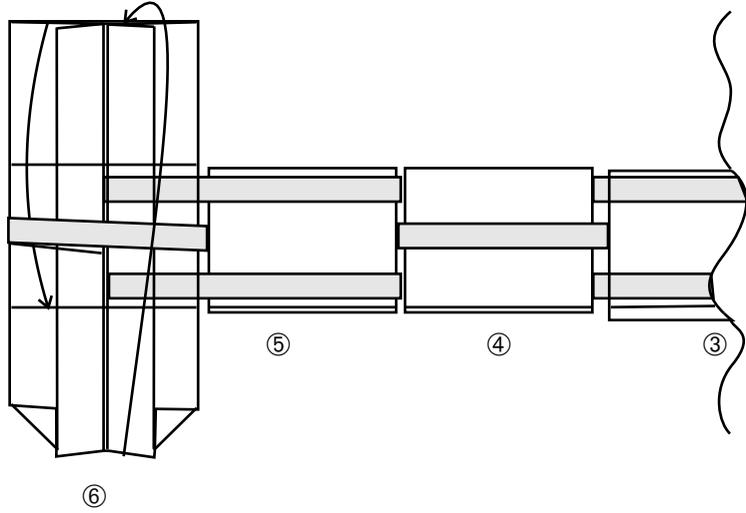


Last Strip 15th

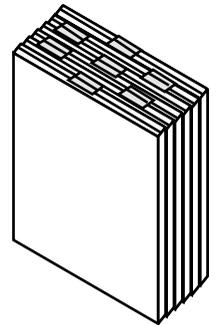


(9) Repeat steps (7) & (8) on panels ③, ④ & ⑤ after inserting the last strip in & as you did on ①, ② & ③ ..

10.) Put the upper flap through the centre strip, then lower flap into the upper flap, which is now under the centre strip of panel ⑥.

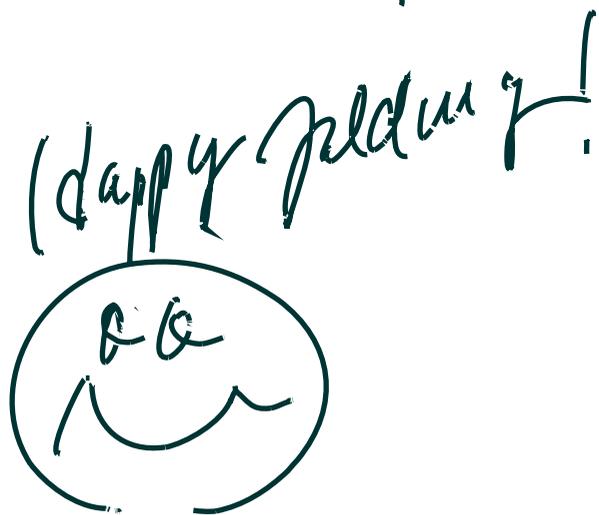


Completed!



**Discover The Magic!**

Grab one end panel with one hand.. Let the other panels go down. Flip the end panel up side down by twisting your hand. Watch the other panels tumble down, one at a time. Some panels may get stuck and stop. That's your problem. Tame the ladder so that it works smoothly every time. What is needed? Without a good balance, the ladder doesn't work right like many things in our life. Practice, practice and practice. Don't ever give up your dream. There are several other tricks you can play with Jacob's Ladder. How about a magic wallet? Place your dollar bill under a set of two strips. Close it. Open it from he other side. What happened? Your dollar bill is now under a single strip. Isn't it? How come? Situation normal, all confused! Don't let the Jacob's Ladder fool you. Get even.



# Jacob's Ladder in Origami

## By Yami Yamauchi.

The wooden toy Jacob's Ladder has always intrigued me. I have seen the Jacob's Ladder many times in action on store displays, which were motorized. Every time I saw it, I stopped and watched them for a while. I wanted to know what makes that action. I never bought one, but I always wanted to have one.

Several years ago, my friend Mike gave me one for my birthday. That was my first Jacob's Ladder. I played with it for many hours. I was so happy with the heartfelt gift and I enjoyed it just like a little boy.

I finally had a chance to find the secret of the magical mechanism. The best way to learn it, I thought, was to make a Jacob's Ladder by myself. I was smart enough to know that it would work with any material. So I tried to make one in origami.

It took me a few days until I came up with a decent working model. That was the time I realized the importance of balance of the components. Without proper balance, the ladder doesn't work right as in many other things; riding bike, marriage, friendship, sex, business, family, health, etc.

Learning the mechanism of the Jacob's Ladder, I came up with my origami model "Magic Wallet" using the same mechanism. Many people liked it because it was magical. I understand the magic wallet was a classic toy with the same mechanism of the Jacob's Ladder. So, it was not my invention. It was my discovery. All I did was to put the mechanism in origami format. A great credit must be given to the inventor of the wooden toy Jacob's Ladder. Do you know the inventor? I don't know either.

The Jacob's Ladder from Mike inspired me for many origami models:

- Magic Wallet
- Alphabet Book
- Index Card Folder
- Business Card Folder
- Portfolio
- Floppy Disk / CD Case
- Photo Frame, etc.

Once you master the mechanism of the Jacob's Ladder, you may be able to come up with many functional things to meet your needs.

I have recently finalized my "Jacob's Ladder" in the 8½" by 11" American Stationary Paper, dedicated to 14 year old Jacob, the only son of my new origami friend Sherrell, who messed up his life with drugs and alcohol, but is so loved by his mother with strong faith that he will be OK.

My sincere wish to Jacob is that he would try to fold the model with a strong desire to be successful with it. He would practice, practice, and practice. A reward for his success is his self-esteem. He will, then, discover the beauty of unity and balance, which comes after perseverance.

Putting aside my poor diagraming, the key to your success is also simply ... practice, practice and practice. The folds are easy but the assembly is a bit tricky. After you complete the assembly, knead the strips back and forth where they have to bend both ways. Every bit of your loving care counts. After all, if it doesn't work, that's your problem! Don't ever give up. Practice, practice and practice. When you master it, you are a master of the Jacob's Ladder. You will, then, find yourself sharing a lot of fun and the joy of origami with your friends.

**Happy Folding!**