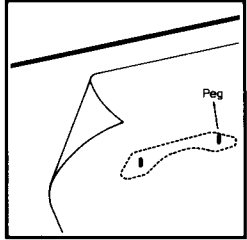


# SPIROGRAPH<sup>®</sup>

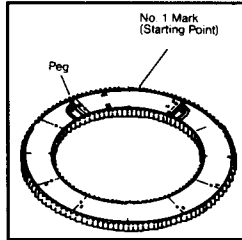
DESIGN TOY

## WITH SPIROSCOPE<sup>™</sup> INSTRUCTION SHEET

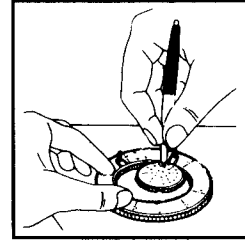
### Basic Pattern Instruction



- The **Holder** is used to position **Rings**, **Rack** and **Shapes** while you draw the designs.
- Lay the **Holder** under a sheet of paper.
- Press down on the paper to punch the pegs through it.



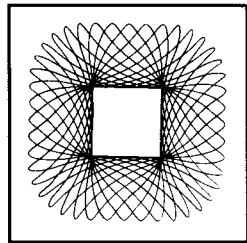
- Select a **Ring** and put the indicated holes in the **Ring** onto the pegs.
- Be sure the **Holder** does not interfere with your design.
- Each **Ring** is numbered.
- The number near the outside edge indicates the number of the outside Gear Teeth; the number near the inside of the **Ring** indicates the number of inside Gear Teeth.



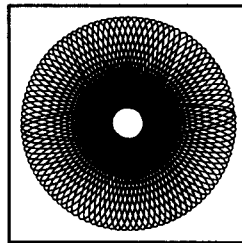
- Select a **Wheel** or **Gear** and place it inside the **Ring**.
- Each **Wheel** or **Gear** is numbered as well as having a number near each hole to help you locate the proper **Ring** and hole to make the desired design.

- **Note** • Before doing your design, rub the point of the **Ball Point Pen** on a piece of scratch paper until the ink flows smoothly.
- Put the **Pen** (only) into one of the numbered holes of the **Wheel**. With two fingers hold the **Ring** down. With the other hand, hold the **Pen** upright and carefully move the **Wheel** around the inside of the **Ring**.
- Always keep the Teeth of the **Wheel** and **Ring** in contact with each other while drawing your designs.
- Start at hole number 1 on the **Ring** and continue until your line meets where you started.
- Now you are ready to draw millions of fascinating patterns!

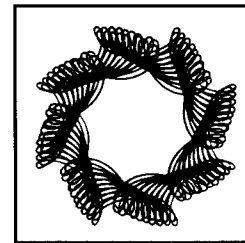
### Designs Drawn With Wheels or Gears Inside Rings



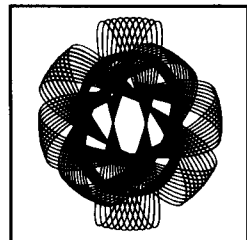
- Use **Square Ring Shape**
- Use **Wheel No. 60** with **Pen** in Hole 1 draw 15 times around to complete the pattern.



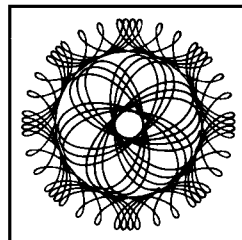
- Use **Ring No. 150/105**
- Use **Wheel No. 52** line up Hole 1 with Mark 1. With **Pen** draw loops until you complete the design.



- Use **Ring No. 144/96**
- Use **Wheel No. 84**, line up Hole 2 with Mark 1 on **Ring**.
- With **Pen** draw patterns using Holes 2 through 10, moving **Wheel 2** Teeth to the left for each pattern.
- Line up Hole 4 with Mark 1 and draw pattern using Holes 4 through 12 moving **Wheel 2** Teeth to the left for each pattern.



- Use **Ring No. 150/105**
- Use **Wheel No. 52**, line up Hole 1 with Mark 1 on **Ring**. Using **Pen** draw ten loops.
- Move **Wheel** five Teeth right. Use **Pen**, in Hole 6. Draw ten loops.
- Move **Wheel** fifteen Teeth right and continue design alternating **Pen** in Holes 9, 12, and 18 to complete design.



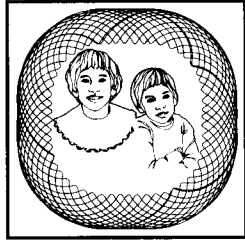
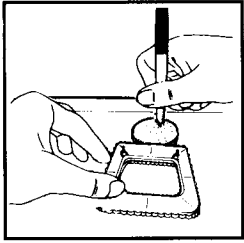
- Use **Ring No. 144/96**
- Use **Wheel No. 84**. Line up Hole 1 with Mark 1 on **Ring**. With **Pen** draw 4 patterns, moving **Wheel 1** Tooth right each time.
- Move **Wheel 3** Teeth right. Draw 1 pattern. Move **Wheel 3** Teeth right, repeat pattern.
- Use **Wheel 63**, line up Hole 16 with Mark 1 on **Ring**. Draw 3 loops. Line up Hole 16 with Mark 11 on **Ring**. Draw 3 loops.

**Kenner**

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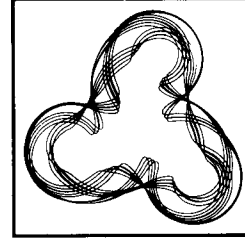
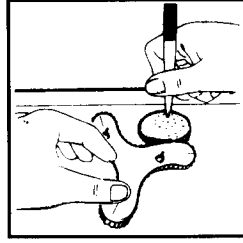
Printed In Mexico

## Creating Designs With the Square Ring Shape



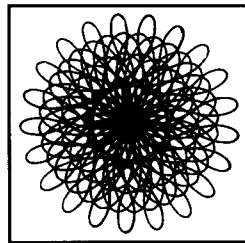
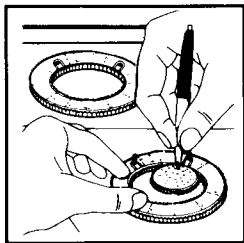
- Use **Square Ring Shape**.
- Use **Wheel No. 60** with Pen in Hole 1 draw 9 times around the outside of the **Square Ring** shape for the first pattern.
- Move **Wheel** two Teeth left of starting point. Use Pen in Hole 1 and draw 9 times around to complete second pattern.
- Frame your favorite photo (no larger than 4 inches by 5 inches) using the **Square Ring Shape** designs.

## Creating Designs With the Propeller Shape



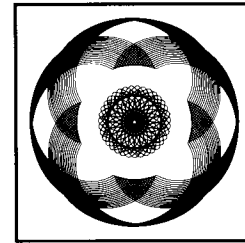
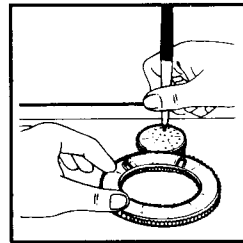
- Use **Wheel No. 52**, position **Wheel** and Hole 6 at highest point on top Arm.
- With **Pen** in hole 6 draw 8 times around for first pattern.
- Reposition **Wheel** by skipping two Teeth to the right of starting position.
- With **Pen** in Hole 6 draw 8 times around to complete second pattern.

## Designs Drawn Using More Than One Ring



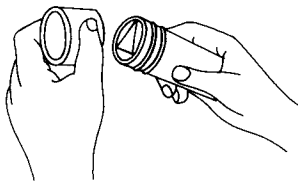
- Use **Ring No. 150/105**
- **Ring No. 150/105**
- Use **Wheel No. 80**, line up Hole 9 with Mark 1. With **Pen**, draw pattern.
- Line up Hole 23 with Mark 1 draw pattern.
- **Ring No. 144/96**
- Use **Wheel No. 63**, line up Hole 11 with Mark 1. Use **Pen**, draw pattern.

## Designs Drawn Using Wheels Outside of Rings

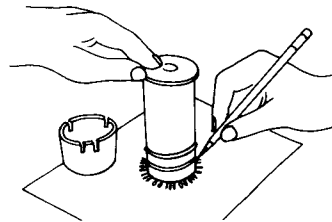


- Use **Ring No. 144/96**
- Outside Design**
- Use **Wheel No. 72**, line up Hole 1 with Mark 1 on outside edge of **Ring**.
- With **Pen** draw eighteen patterns moving wheel one Tooth right for each pattern.
- Line up Hole 1 with Mark 4 of the Ring and draw eighteen patterns moving wheel one Tooth right for each pattern.
- Inside Design**
- Leave **Ring** in place.
- Use **Wheel No. 52**, Hole 1 draw one complete pattern. Use Hole 10, draw one complete pattern.
- Remove **Ring No. 144/96**
- Use **Ring No. 150/105**
- Use **Wheel No. 24**, Hole 1, draw one complete pattern.

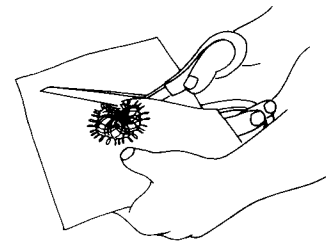
## Viewing Designs In Your Spiroscope™



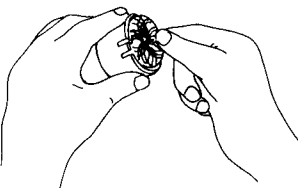
1. Pull to remove the end section of the **Spiroscope™** view tube.



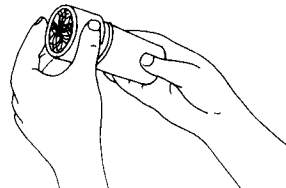
2. Draw a circle using the view tube. Select the whole design or part of a design to view.



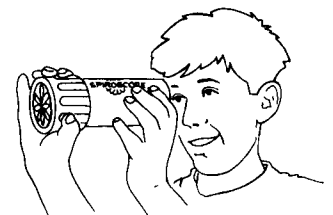
3. Have an adult cut out section of the design you want to use.



4. Place the cutout design facing you in the end section of the viewing tube.



5. Replace the end section.



6. Hold the **Spiroscope™** up to a light or turn end section to view.