



PROFESSIONAL PATENT ILLUSTRATORS

All You Need to Know about US Patent Drawing Rules

Last Updated on 14th Nov 2019



www.shutterstock.com · 564373702

US Patent drawings need to follow a set of instructions by the [USPTO](#) for every illustration in your application. Almost all patent applications contain drawings. In fact, providing a drawing is vital for the better elucidation of the subject matter in the patent request. However, it is essential to follow the rules while preparing US patent drawings. They should help your case, and not hinder it while you write your patent to explain your invention. You must provide at least one drawing with your non-provisional application to make your invention clearer.

This article aims to list out the important guidelines that you need to follow while producing your drawings.

US Patent Drawings: Essentials to Remember

Let's talk about the basic drawing rules first. [The Manual of Patent Examining Procedures](#) lists out instructions that you need to adhere to:

- All illustrations must be in black and white unless a part of the invention needs color to explain it.
- Always use India ink on all drawings.
- Ensuring that the drawing is to scale when the illustration is reduced to two-thirds the size is vital.
- Each drawing should include the invention name, name of the inventor, and application number.
- Submit all illustrations on a white A4 matte paper that is flexible and strong. Dimensions should be 21cm x 29.7cm or 21.6cm x 27.9 cm.
- Margins should be as follows:
 - 2.5 cm on the top
 - 2.5 cm on the left side
 - 1.5 cm on the right side
 - 1.0 cm on the bottom
- The superimposition of drawings should not happen.
- You may use symbols and legends if necessary to describe the invention.
- Avoid solid black shading except on bar graphs or to represent color.
- Use lead lines to redirect the reader from the drawing to the associated symbol in the description.

Drawings aren't restricted to illustrations and can also include charts and diagrams. The USPTO allows photos, but only for utility patents and design patents. Photographs must be in high definition to depict intricate details of the invention. They must follow the same rules in terms of the type, size, and margins of the drawing.

Note: You don't require any drawings for patents involving chemical compounds.

Color Drawings

Color drawings are only permissible for design and utility patents and are rare to find. The first step is to file a petition under Title 37 (CFR) 1.17(h). You must also pay the specified fee of \$130 for permission to include and use color drawings. The quality of the drawing should be high enough. This is to ensure that one can reproduce them in black and white on the printed patent without losing any details.

Graph forms in Drawings

You may need to include tables, formulas, and waveforms while describing your invention. Representation of these data requires you to adhere to the same rules as any other type of drawing. Formulas and waveforms have some specific conditions:

- **Formulas: You should label** each formula as a separate figure and include brackets to show any necessary information.
- **Waveforms: You must represent** Waveforms in a single figure that uses a vertical axis and a horizontal axis that shows time. It is important to identify each individual waveform via a letter designation adjacent to the vertical access.

US Patent Drawings: Views

You need to include several viewpoints in your drawings to depict the looks of your product and its working. Wherever applicable, you should include the following views of your invention:

- Standard six views (front, back, right, left, top, and bottom) for 3D objects.
- Two views (front and back) for 2D objects
- Sectional views to depict the functionality
- Three-dimensional perspective views
- Exploded views to represent how each part works during the operation of the invention

You may exclude unornamented surfaces. Shading is another essential component of patent drawings. It depicts depth, contour, and texture. You should use dots, lines, and distinctive patterns for this.

Arrows and lead lines also play a key role in the drawings. Here are the places where you use arrows:

- To signify movement direction.
- An arrow on a lead line signifies the entire section to which it points to.
- When an arrow is touching a lead line, it shows the surface indicated by the line.

Key Points to Consider for US Patent Drawings

Despite all these rules, there are other considerations you should be aware of while creating US patent drawings. Some of these include:

- **Numbering of Sheets: You must number the** drawings in Arabic numerals, and write it on the top of the sheet. This can be either in the middle or on the right, but not in the margin. Numbering must also include two numerals separated by a line to show the page out of the total number of pages. Ensure that the numbers that you use to identify portions of the drawing are not larger than the numerals.
- **Numbering of Views: You must number the** views with consecutive Arabic numerals, and they must be independent of sheet numbering. Another key point is to use the same Arabic numerals for partial followed by a capital letter. You must not use brackets, circles, or inverted commas while writing the numbers and letters. These numbers must also be preceded by "FIG." But this isn't necessary if there is only 1 view.
- **Holes:** Ensure that you don't make any holes anywhere in your drawings.
- **Copyright/Mask Work Notices:** You may place them in the drawing directly below the portion they pertain to, having a dimension of 1/8 inch x 1/4 inch.
- **Corrections:** You must ensure that the corrections you submit with the patent drawing must be permanent and durable.
- **Security Markings:** You may use them, but they must be in the center of the top margin.

Need an illustrator? Contact Professional Patent Illustrators

As you can see, there are a lot of guidelines that you need to adhere to. Sometimes, you may feel that making your own drawings is tedious. If you require a patent illustrator, TPDC is at your service. Our experienced experts are skilled in the widest range of software/technologies to cater to all your needs. We believe in 100% satisfaction with our customers. To ensure this, we are willing to make

any number of iterations until you are satisfied. We offer timely solutions at very affordable prices to ensure that your pocket is not overburdened.

To make an inquiry, visit [Professional Patent Illustrators](#).

[Professional Patent Illustrators](#) – A business unit of [Sagacious IP](#)

Contact us on: info@professionalpatentillustrators.com

All rights reserved. ©