

Cascading Style Sheets, part III

Web Design in a Nutshell, Third Edition

Chapters 19 and 21

Objectives

- Understand the CSS visual formatting model
 - Use the CSS box model
 - Use the margin properties
 - Use the padding properties
 - Use the border properties
 - Use the special box properties
 - Apply special box properties
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The CSS Visual Formatting Model

- Describes how the element content boxes should be displayed by the browser
 - Based on the hierarchical structure of the HTML document and element display type
 - Elements fall into three display type categories: Block, Inline and lists
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The CSS Visual Formatting Model

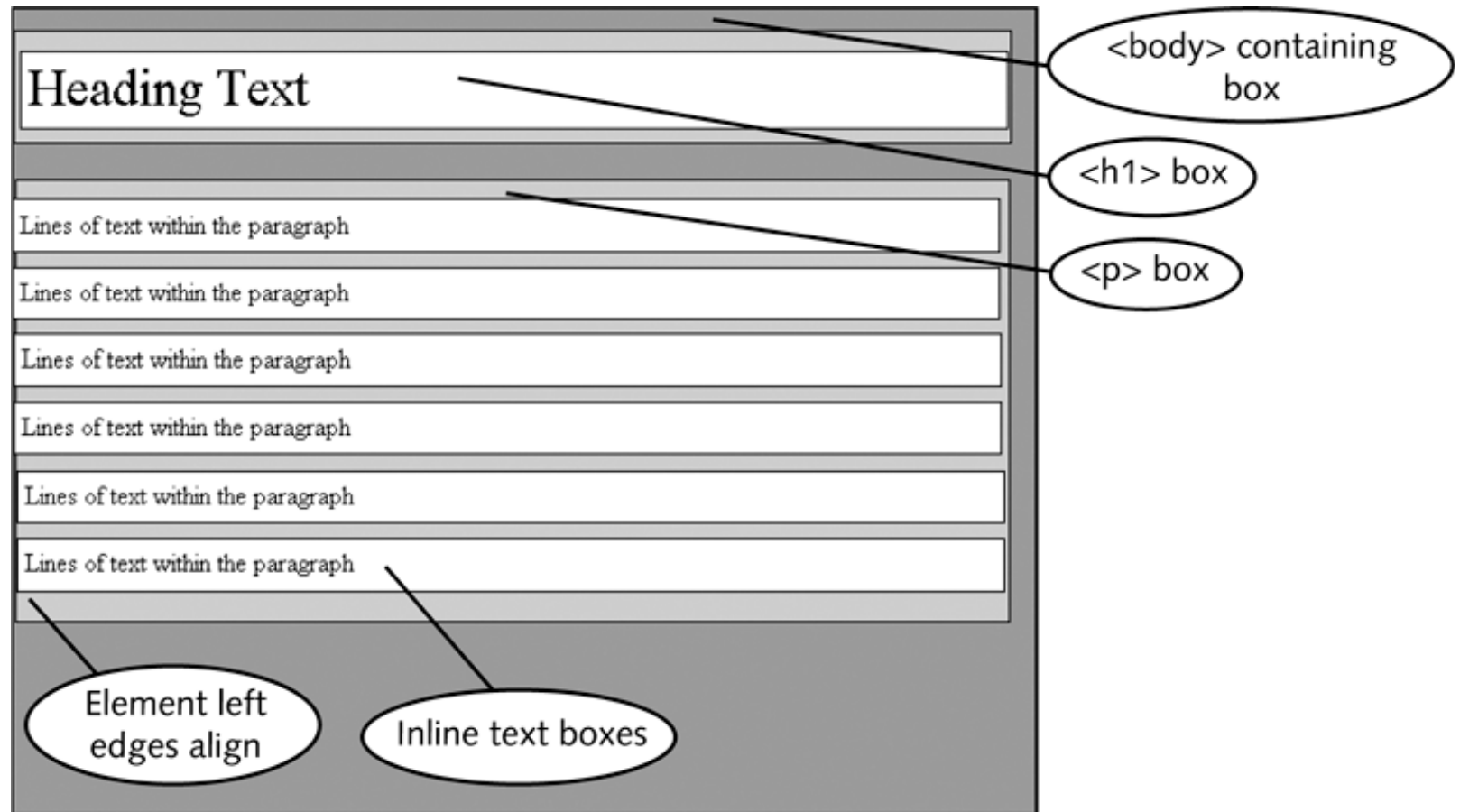


Figure 9-1 The CSS visual formatting model

Specifying Element Display Type

- The CSS **display** property determines the display type of an element.
- The following style rule changes the default display type for an `<h1>` element from block to inline:

```
h1 {display:inline;}
```

Specifying Element Display Type

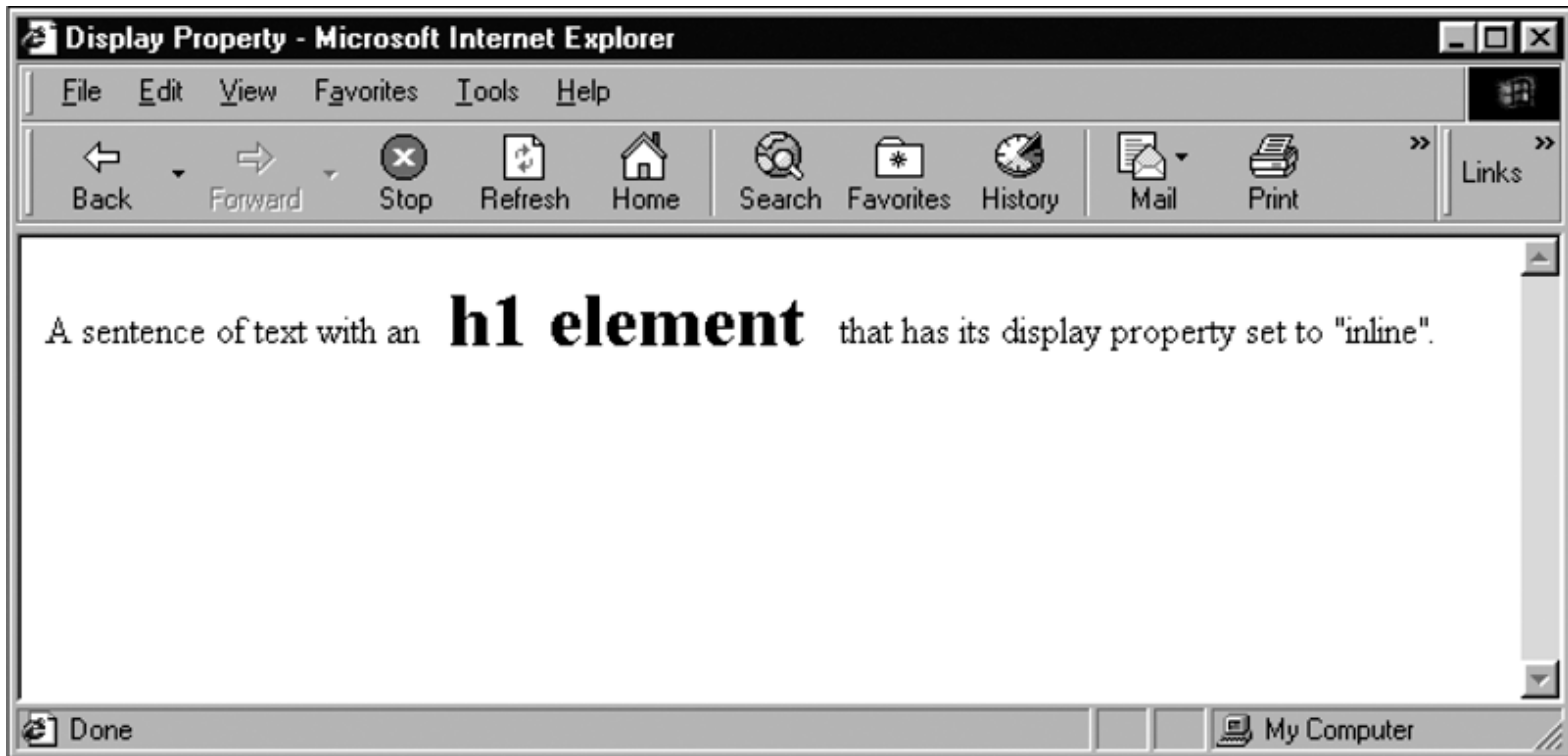


Figure 9-2 Manipulating the display property

Specifying Element Display Type

- The CSS **display** property can be used in different style sheets to display or hide content.
- For instance, you might hide a header on a stylesheet meant for printing:

```
#header { display: none; }
```

Using the CSS Box Model

- Describes the rectangular boxes that contain content on a Web page
 - Each block-level element created is displayed as a box containing content in the browser window
 - Each content box can have margins, borders and padding (specified individually)
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CSS Box Model

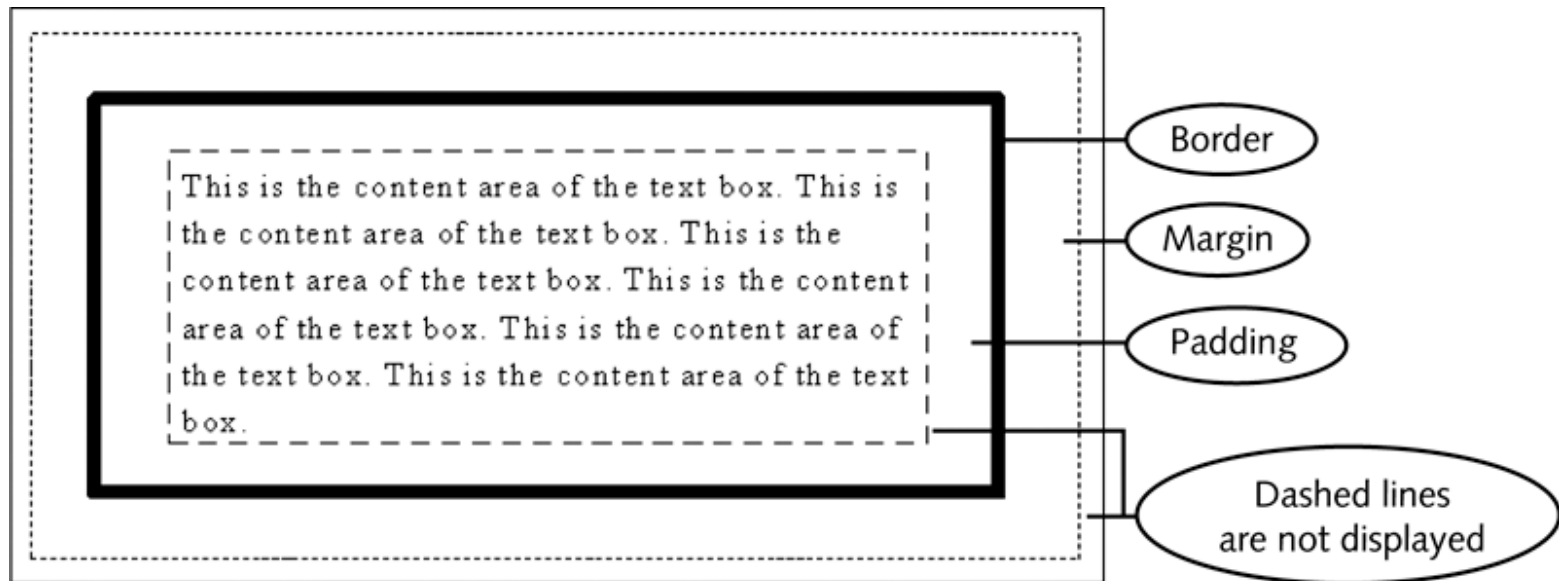


Figure 9-3 The CSS box model

CSS Box Model

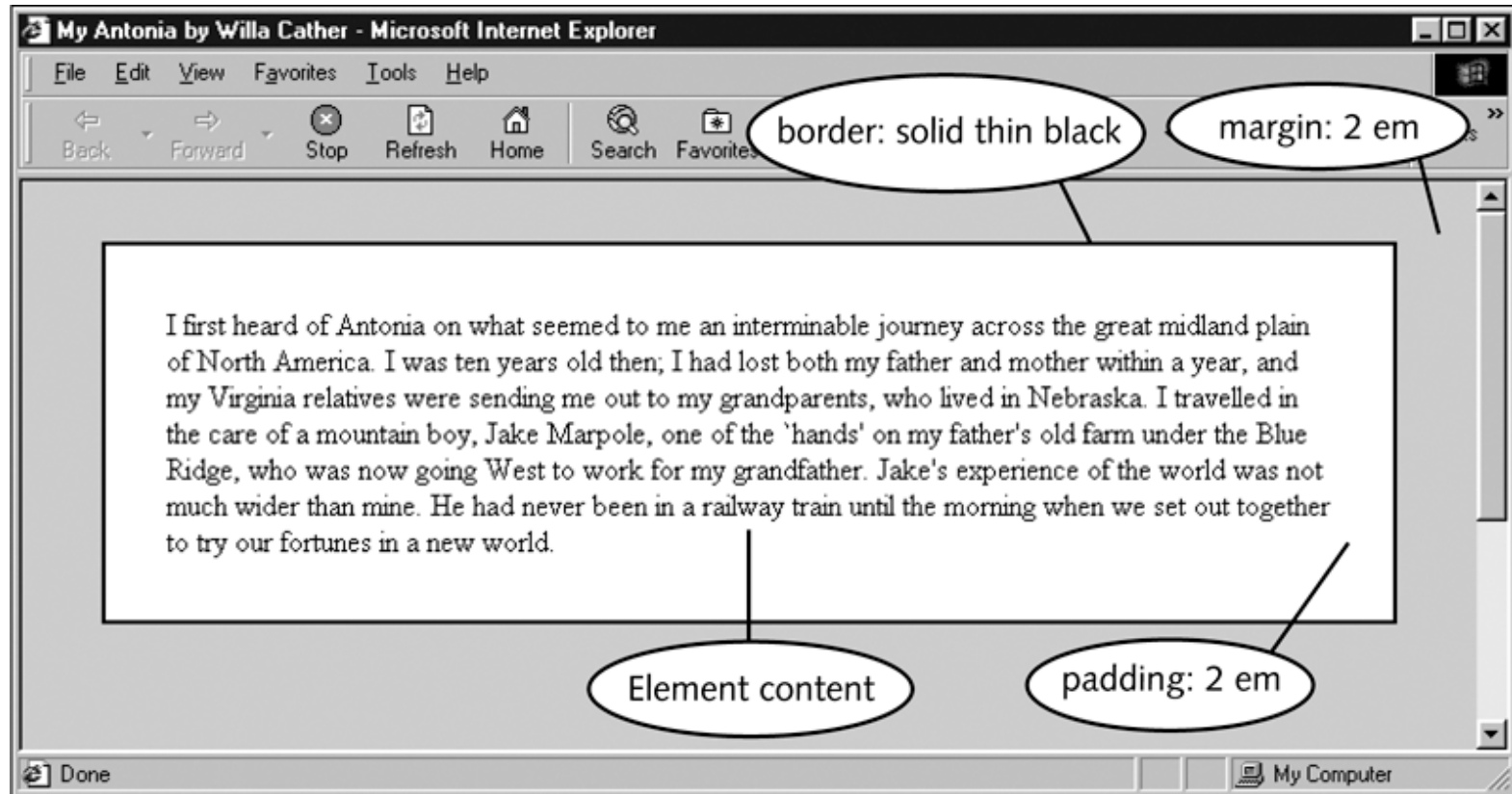


Figure 9-4 The CSS box model areas in a <p> element

CSS Box Model

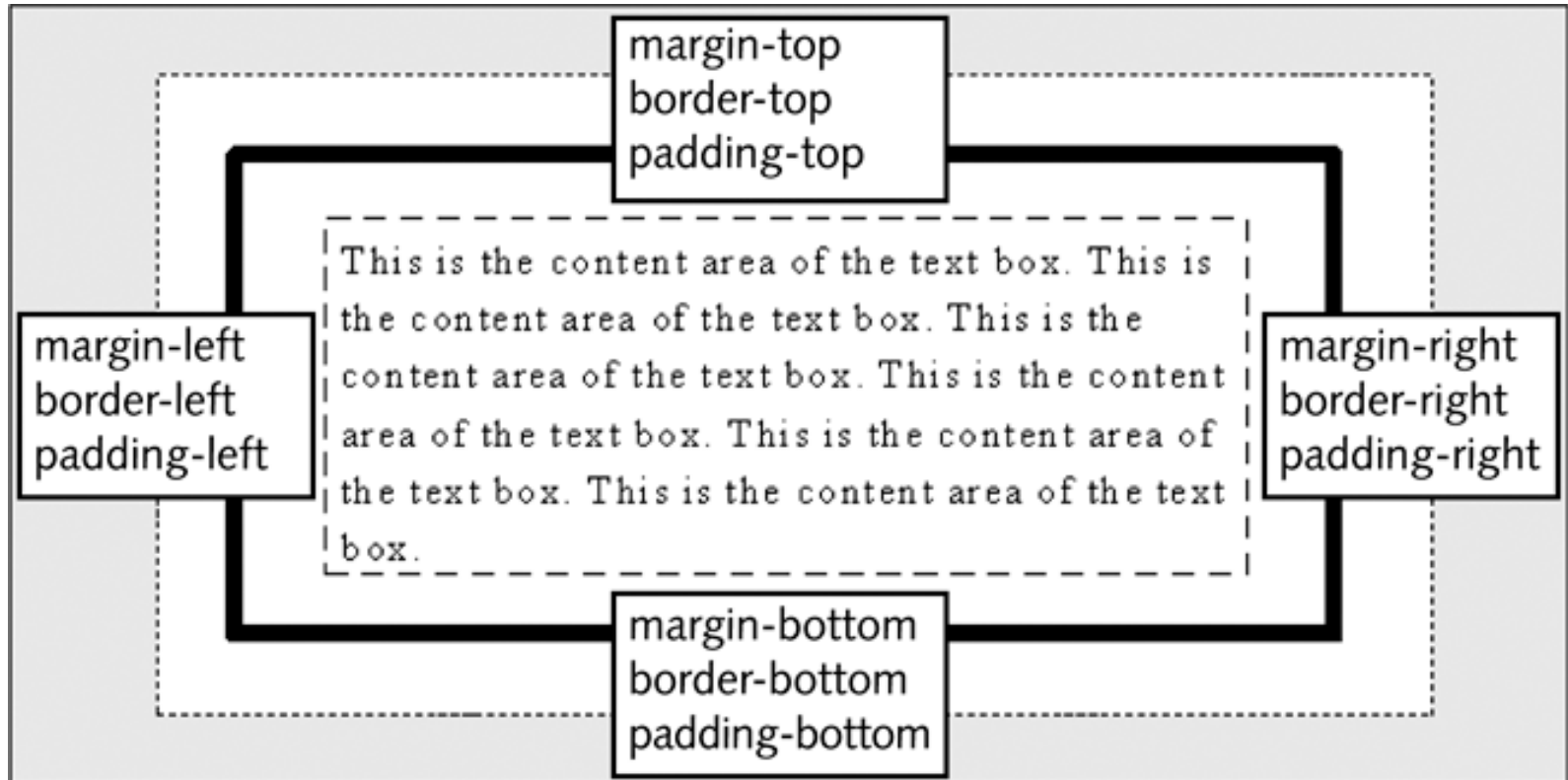


Figure 9-5 The CSS box model individual sides

CSS Box Model

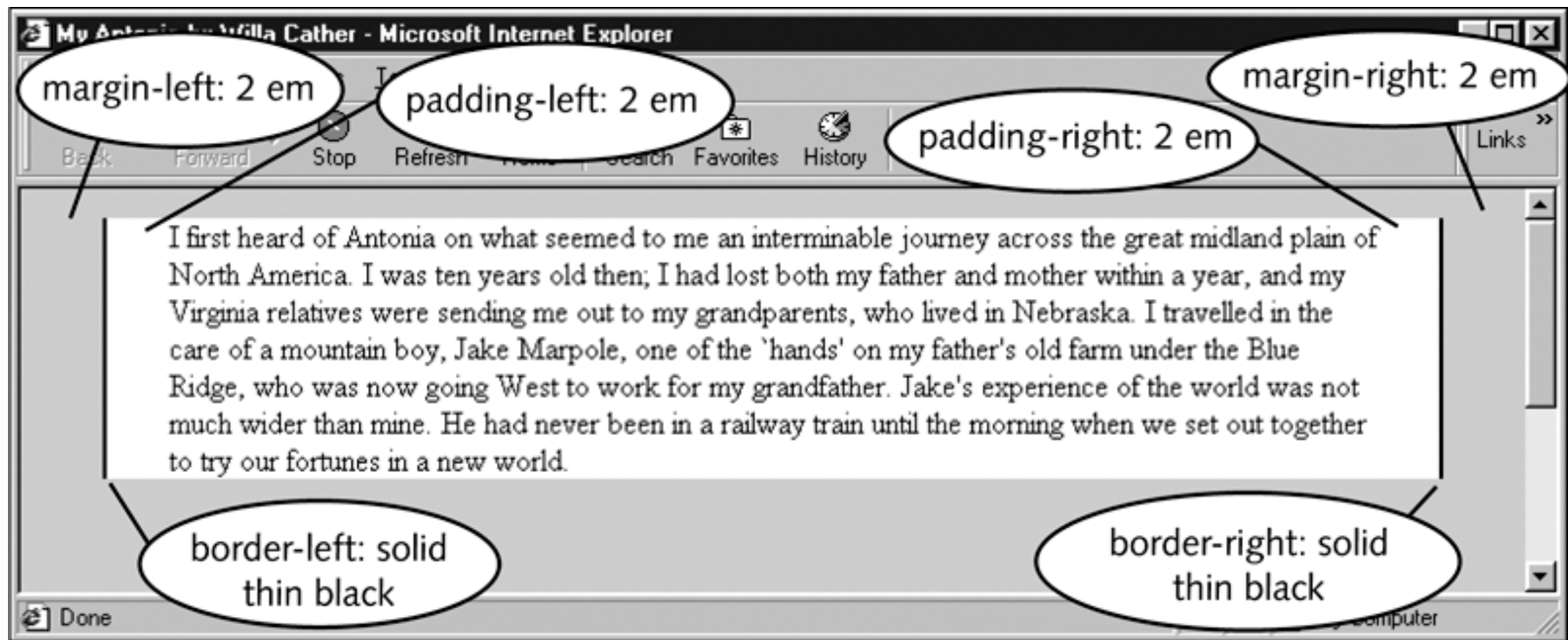


Figure 9-6 The CSS box model individual sides in a <p> element

Measurement Values

- Margin, border and padding properties allow two types of measurement:
 - **Length**
 - Absolute or relative values, e.g. 1em, 2px, 12pt
 - **Percentage**
 - Based on width of containing box, e.g. 25%
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The Margin Property

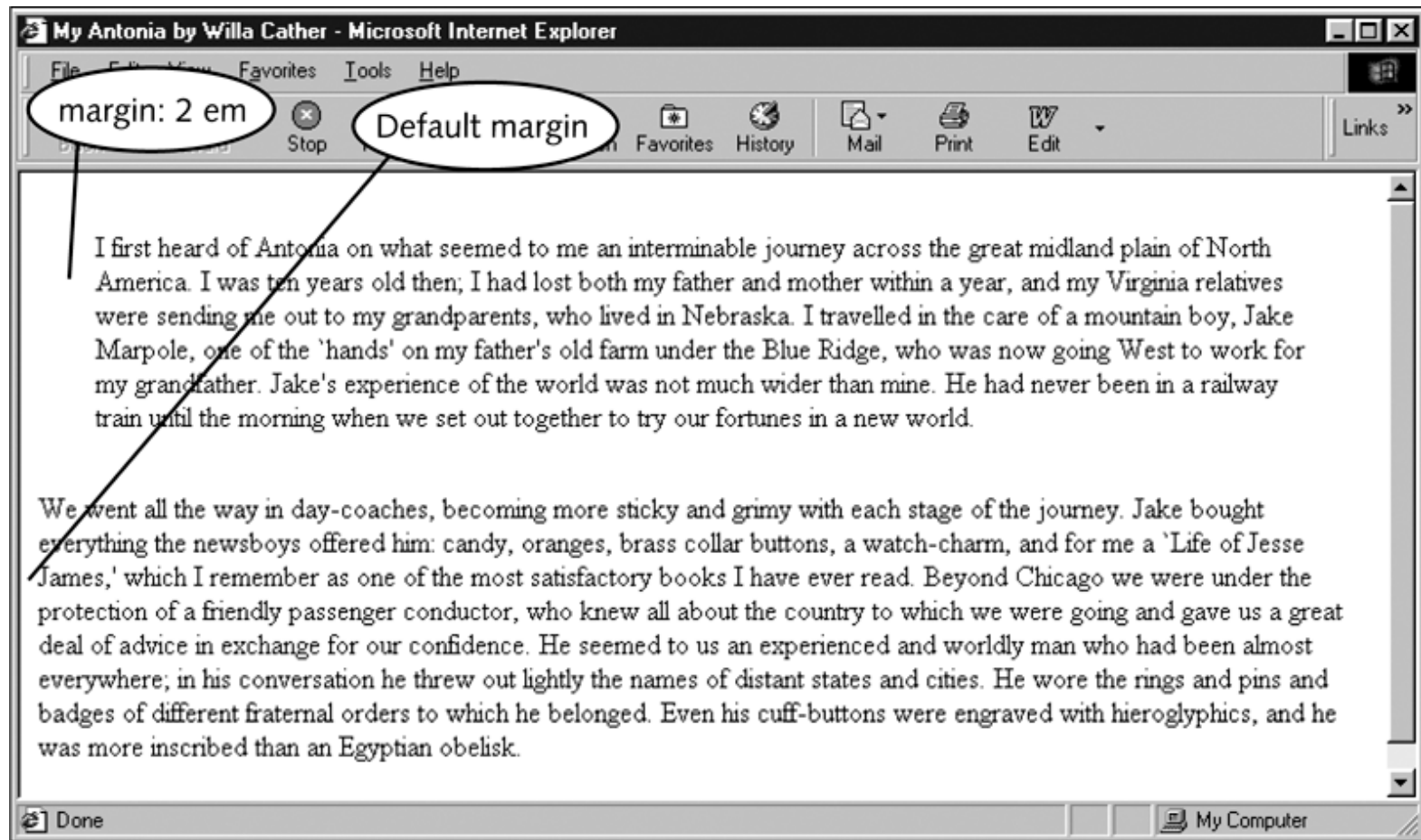


Figure 9-7 Using the margin property

Left, Right, Top and Bottom margins

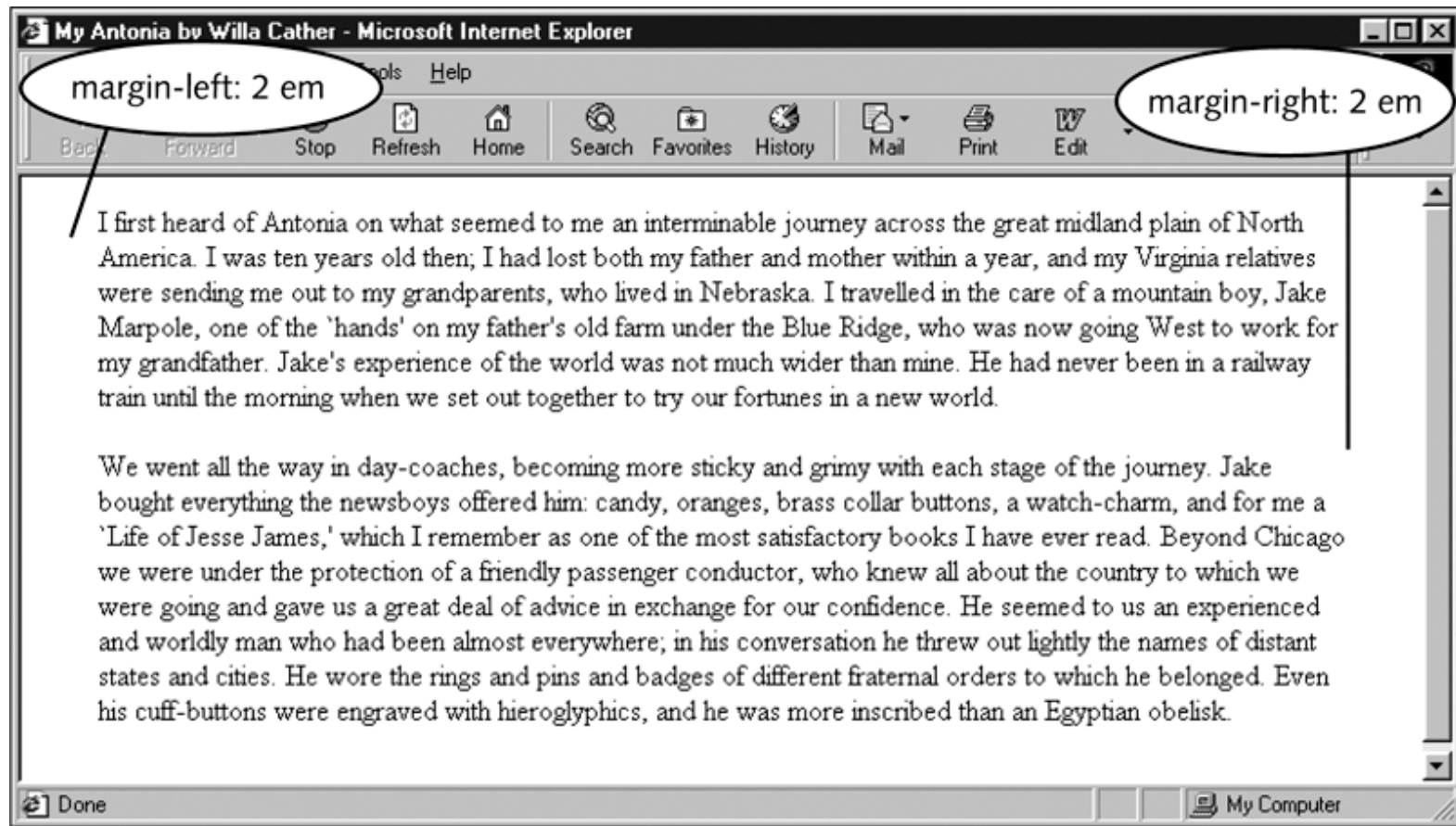


Figure 9-8 Using the individual margin properties

Negative Margins

- Negative margins can be set to achieve special effects
 - Example: Hide some text, but leave it on the page to help with accessibility and search engine rankings

#header h1 {margin-left: -1em;}

- Can also be used to remove the default margins from other elements
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Negative Margins

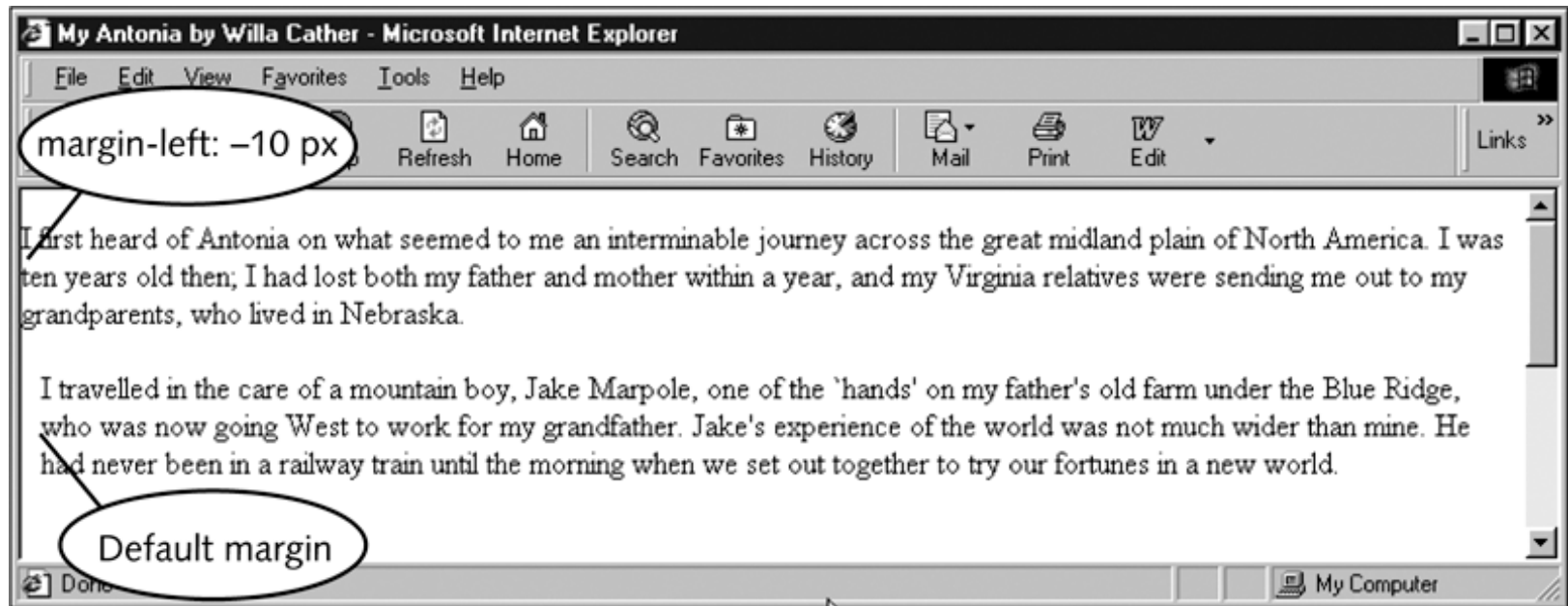


Figure 9-9 A `<p>` element with negative left margin

Short Cuts for Top Left Bottom Right

- 4 values – **margin: 1em 2em 1em 2em;**
 - Top Left Bottom Right
 - 3 Values – **margin: 1em 2em 1em;**
 - Top Left/Right Bottom
 - 2 Values – **margin: 1em 2em;**
 - Top/Bottom Left/Right
 - 1 Value – **margin: 1em;**
 - All Four Sides
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The Padding Property

- Control the padding area in the box model
 - Area between the element content and the border
 - Padding area inherits the background color of the element
 - If a border is added to an element, padding should be adjusted to increase legibility and enhance the presentation
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The Padding Property

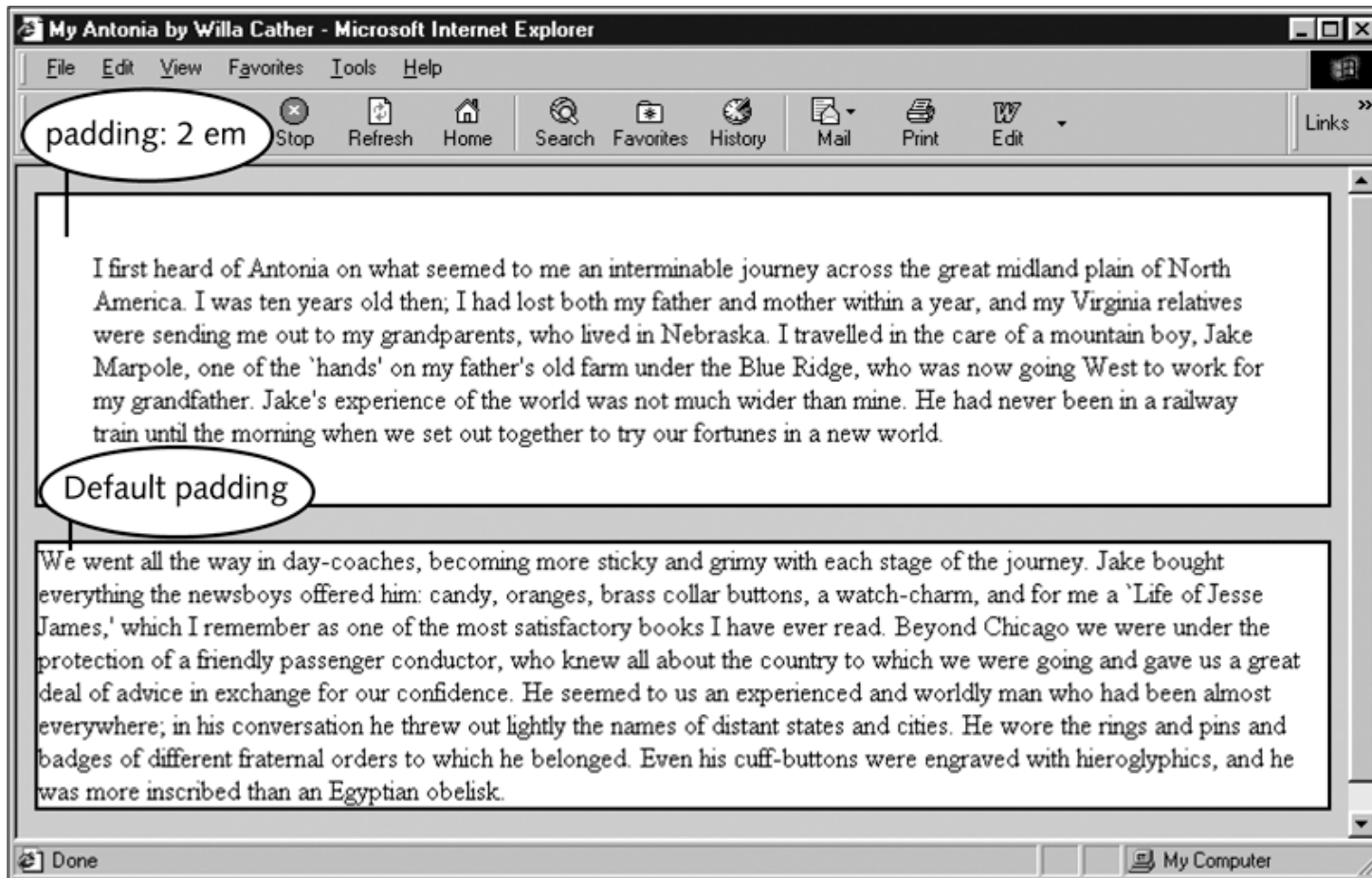


Figure 9-12 Default padding and 2-em padding

Left, Right, Top and Bottom padding

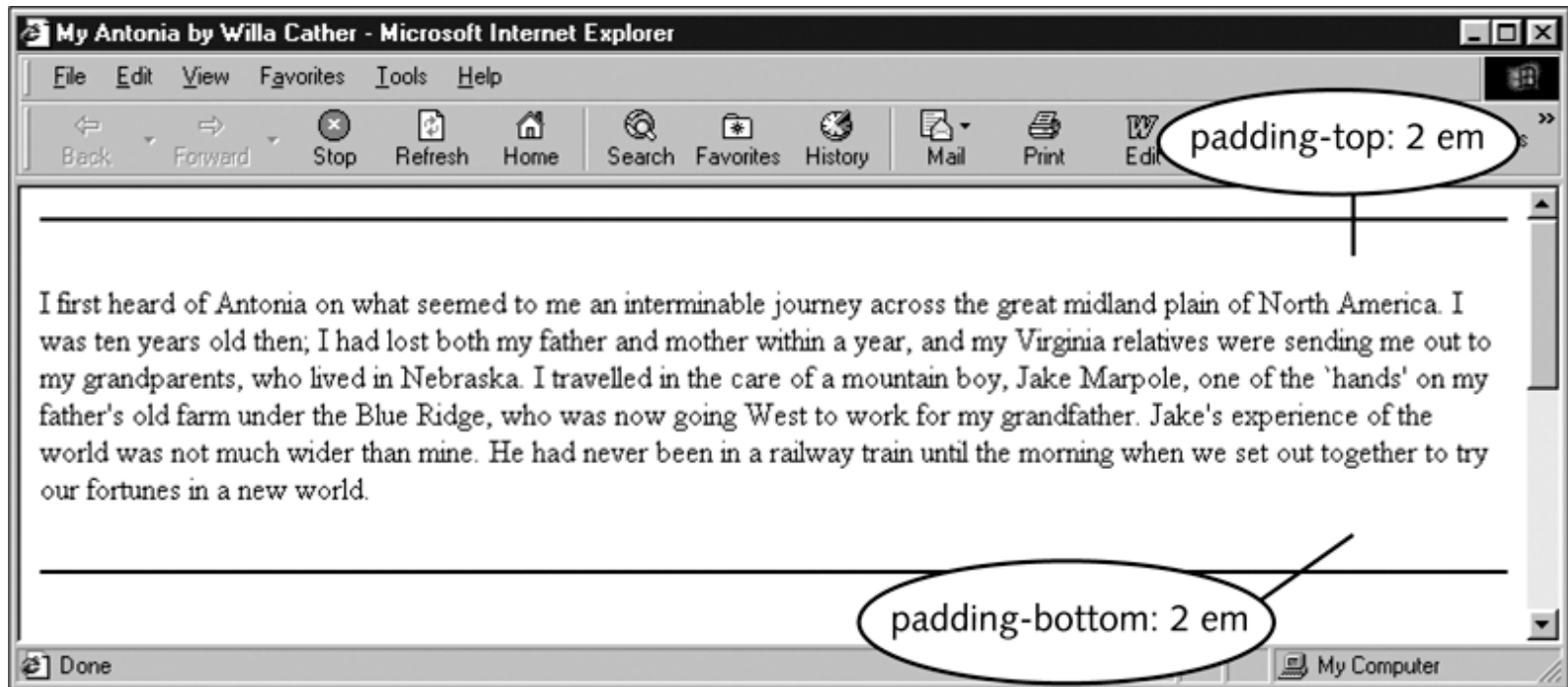


Figure 9-13 Using the individual padding properties

Border Properties

- Control the appearance of borders around elements
 - Area between the margin and the padding
 - There are five basic border properties:
 - border
 - border-left
 - border-right
 - border-top
 - border-bottom
-

Specifying Border Style

- Border style keywords:
 - **none** — no border on the element (default)
 - **dotted** — dotted border
 - **dashed** — dashed border
 - **solid** — solid line border
 - **double** — double line border
 - **groove** — 3-D embossed border
 - **ridge** — 3-D outward extended border
 - **inset** — 3-D inset border (entire box)
 - **outset** — 3-D outset (entire box)
-

Specifying Border Style

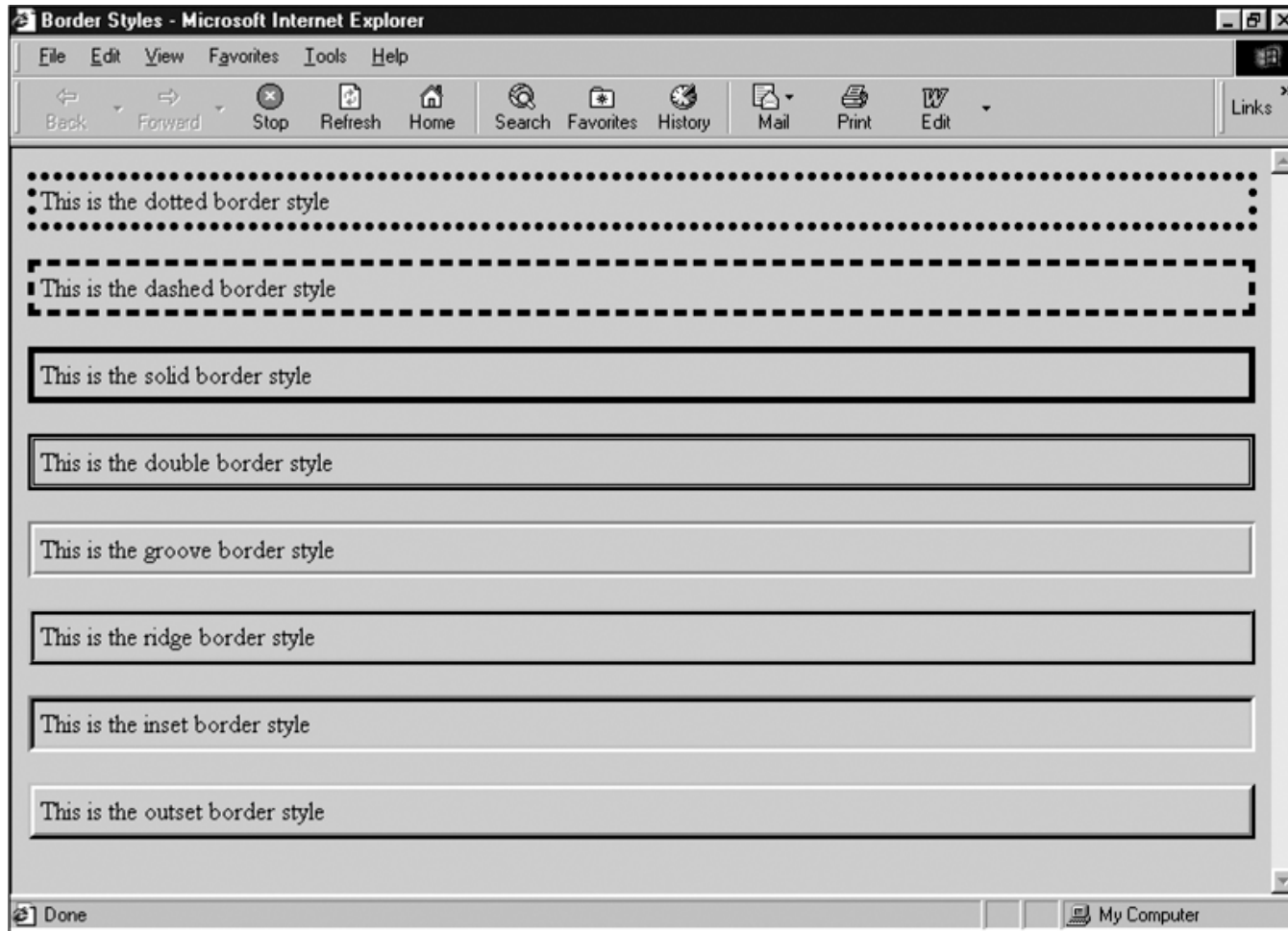


Figure 9-14 Different border styles

Specifying Border Style

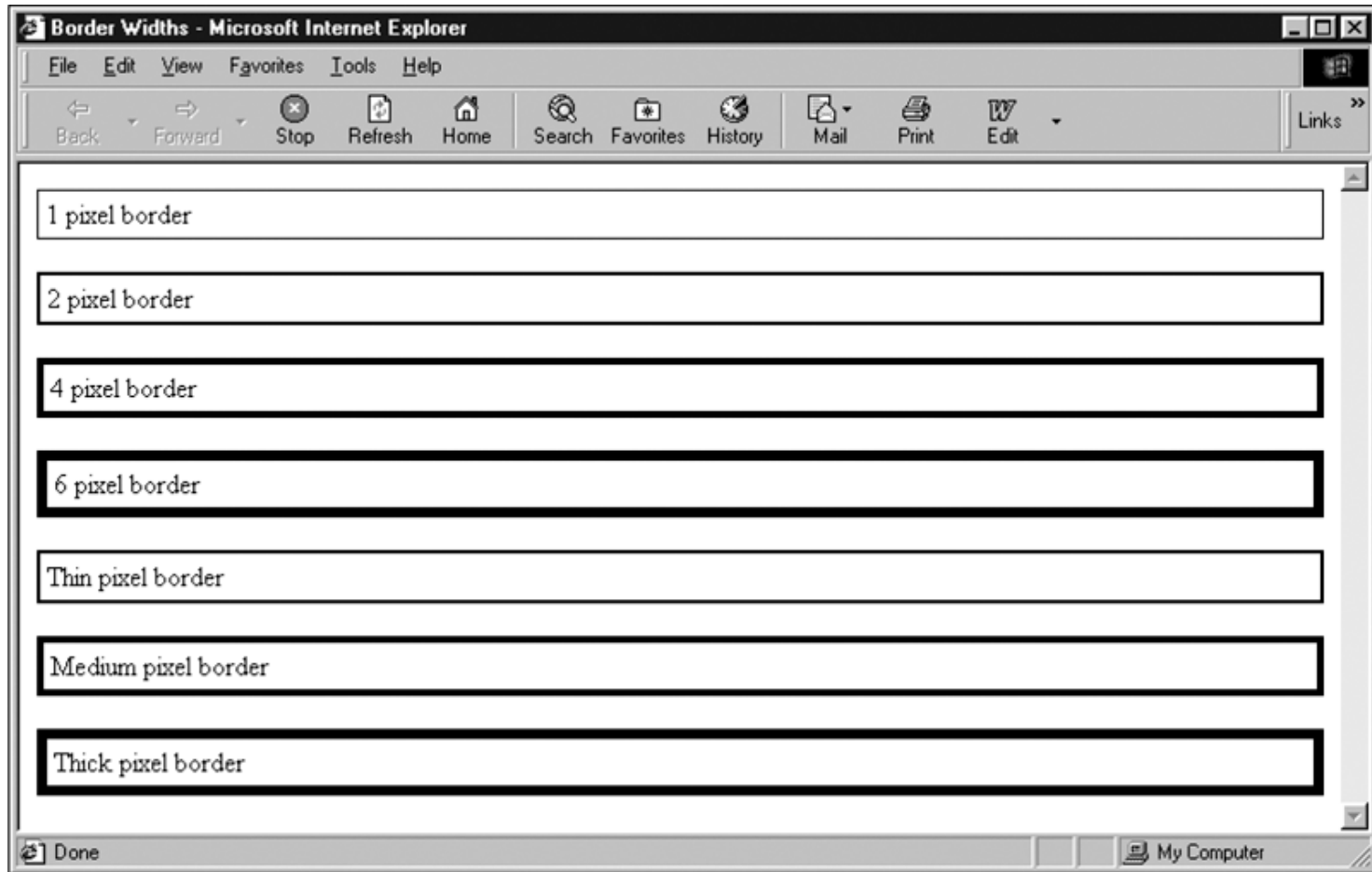


Figure 9-15 Different border widths

Specifying Border Color

- Allows setting of element border color
- To set a border color, use the property as shown in the following rule:

```
p {  
    border-color: red;  
}
```

Using the Special Box Properties

- Allow floating of images or boxes to the left or right of content on the page
 - Special box properties:
 - **width**
 - **height**
 - **float**
 - **clear**
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Width

- Sets the horizontal width of an element
- Width is not intended for normal block-level elements, but you can use it to create floating text boxes or with images.

div {width: 200px;}

Height

- Sets the vertical height of an element
- Like width, height is not intended for normal block-level elements, but you can use it to create floating text

div {height: 150px;}

Float

- The float property lets you position an element to the left or right edge of its parent element.
 - Float is most commonly used for `` elements, allowing alignment of an image to the left or right of text.
 - You can also use the float property to align a text box to the left or right edge of its parent.
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Float

- Float property can be used to float a text box to the left or right of text
 - Advantage: tables aren't required, just a single simple CSS style rule is all that is required
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Using the Float Property

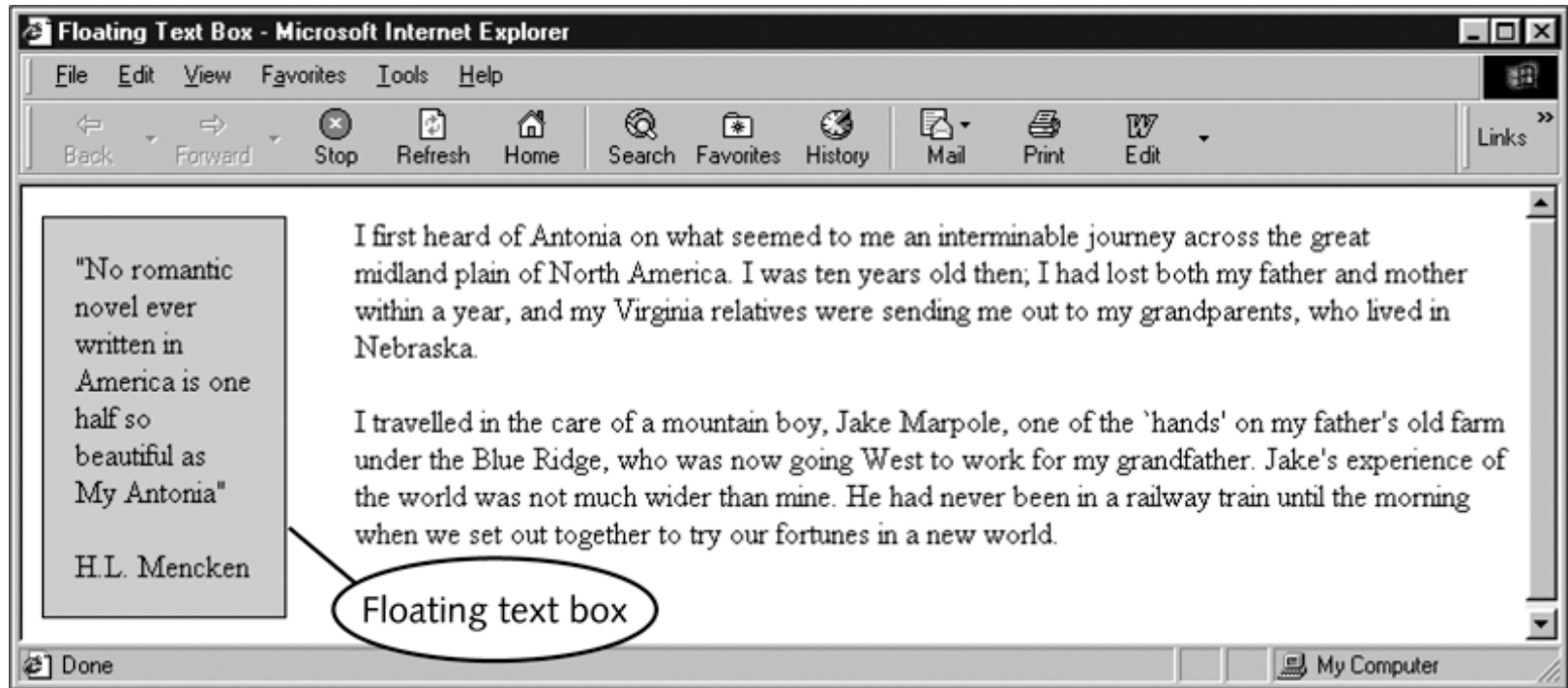


Figure 9-16 A floating text box

Clear

- Controls the flow of text around floated elements
- You only use the clear property when you are using the float property
- Clear lets you force text to appear beneath a floated element, rather than next to it

<h2 style="clear: left;">

Normal Text Flow

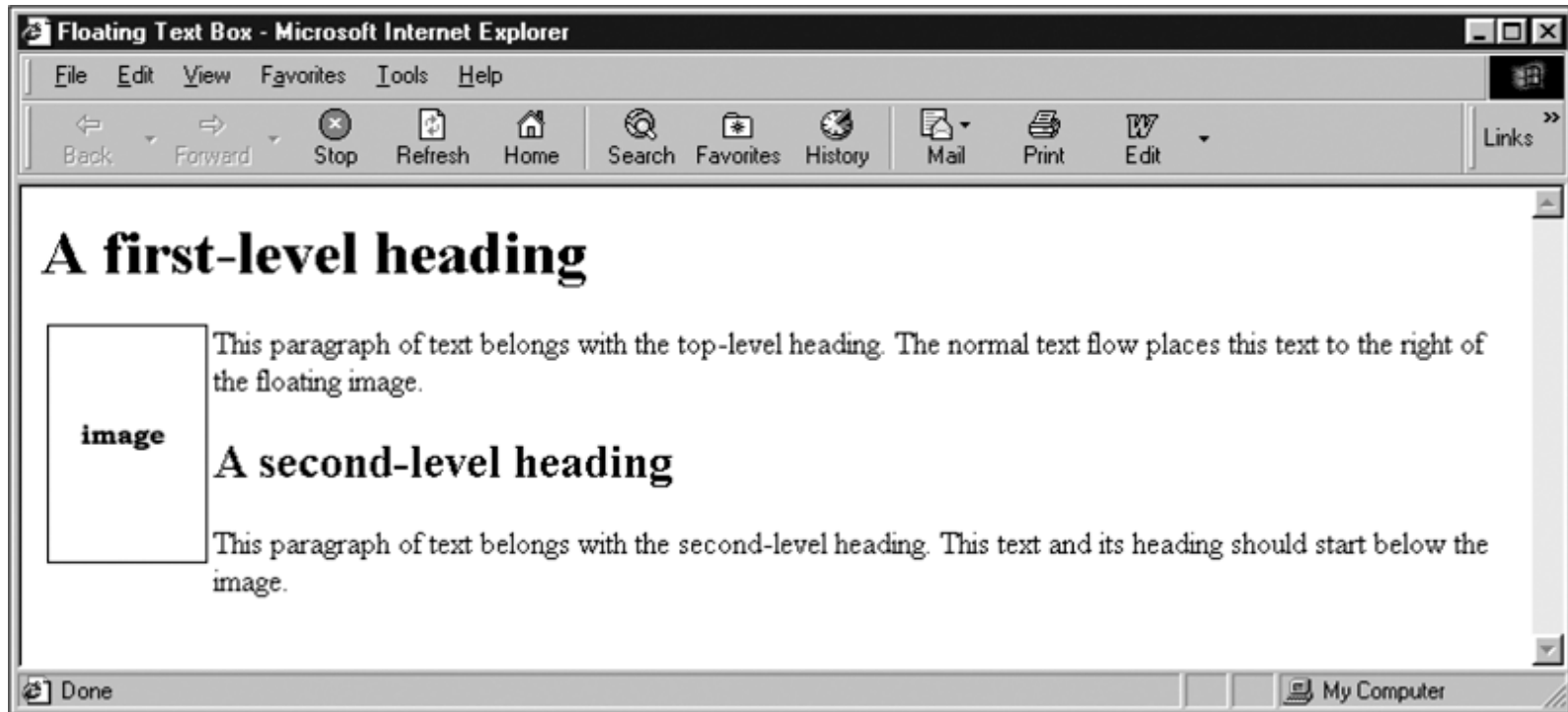


Figure 9-18 Normal text flow around a floating image

Using Clear

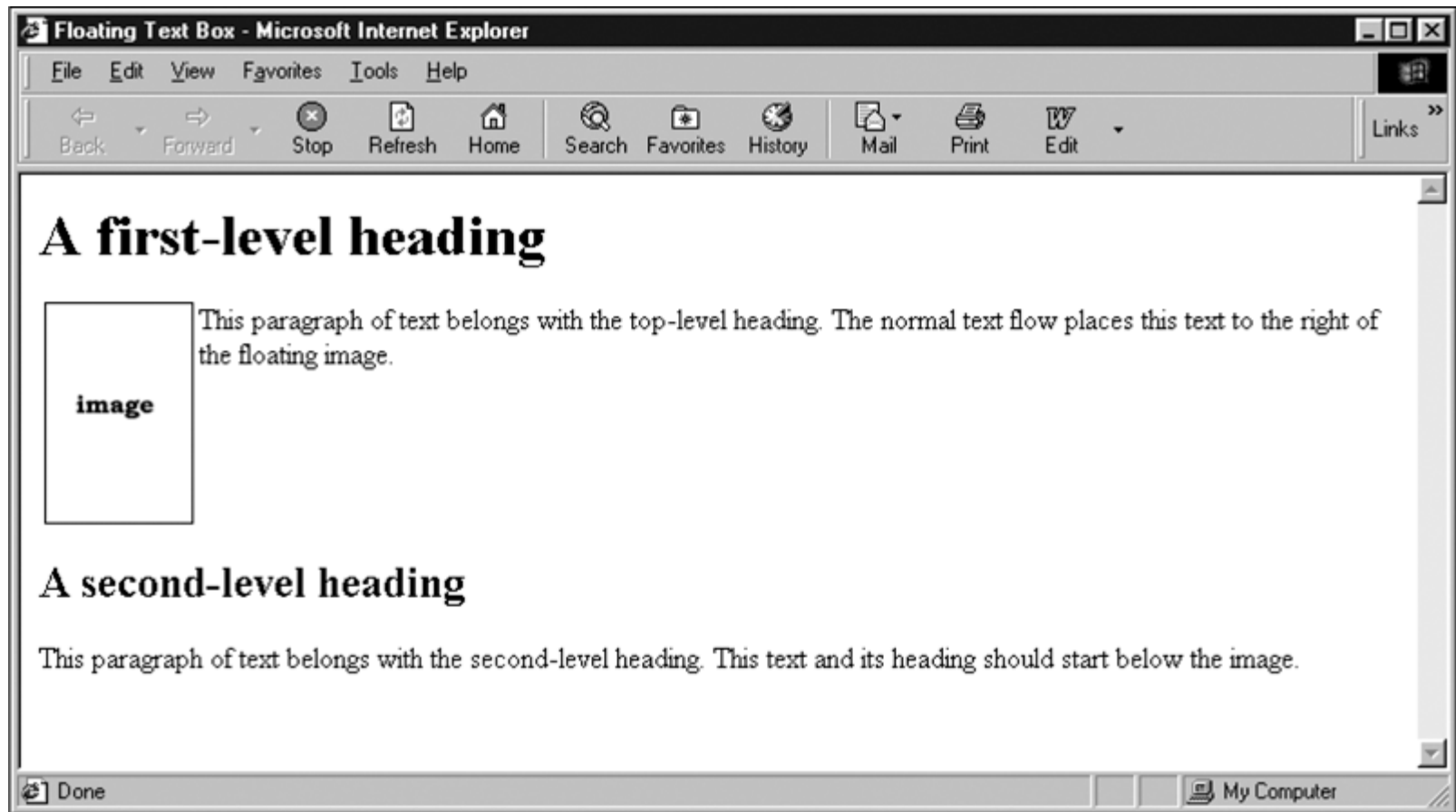


Figure 9-19 Using the clear property

Summary

- Margins are transparent; padding has the same background color as the content;
 - Border properties allow the addition of borders to individual sides or all sides of an element
 - Special box properties allow the creation of floating images or text boxes
 - Always design for readability
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