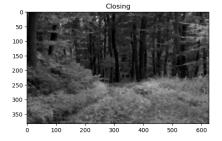
## 10. Perform erosion, dilation, opening, closing

```
In [8]:
         import cv2
         import numpy as np
          import matplotlib.pyplot as plt
          img=cv2.imread("log.png")
          binary image = cv2.cvtColor(img, cv2.COLOR BGR2GRAY)
 In [5]: kernel = np.ones((5, 5), np.uint8)
         #erosion
          erosion = cv2.erode(binary_image, kernel, iterations=1)
         # Dilation
         dilation = cv2.dilate(binary image, kernel, iterations=1)
         # Opening (Erosion followed by Dilation)
         opening = cv2.morphologyEx(binary_image, cv2.MORPH_OPEN, kernel)
         # Closing (Dilation followed by Erosion)
         closing = cv2.morphologyEx(binary image, cv2.MORPH CLOSE, kernel)
In [11]: plt.figure(figsize=(15,10))
         plt.subplot(2, 3, 1), plt.imshow(binary_image, cmap='gray'), plt.title('Original Im
          plt.subplot(2, 3, 2), plt.imshow(erosion, cmap='gray'), plt.title('Eroded Image')
         plt.subplot(2, 3, 3), plt.imshow(dilation, cmap='gray'), plt.title('Dilated Image')
          plt.subplot(2, 3, 4), plt.imshow(opening, cmap='gray'), plt.title('Opening')
          plt.subplot(2, 3, 6), plt.imshow(closing, cmap='gray'), plt.title('Closing')
         plt.tight_layout()
         plt.show()
                   Original Image
                                                 Eroded Image
                                                                              Dilated Image
        150
        300
                                                                   350
        350
```





In [ ]: