In [1]:
```
import cv2
import numpy
import matplotlib.pyplot as plt
```

In [2]:
```
image=cv2.imread('coins_2.jpg')
```

In [4]:
```
gray=cv2.cvtColor(image,cv2.COLOR_BGR2GRAY)
```

In [5]:
```
plt.imshow(gray,cmap='gray')
```

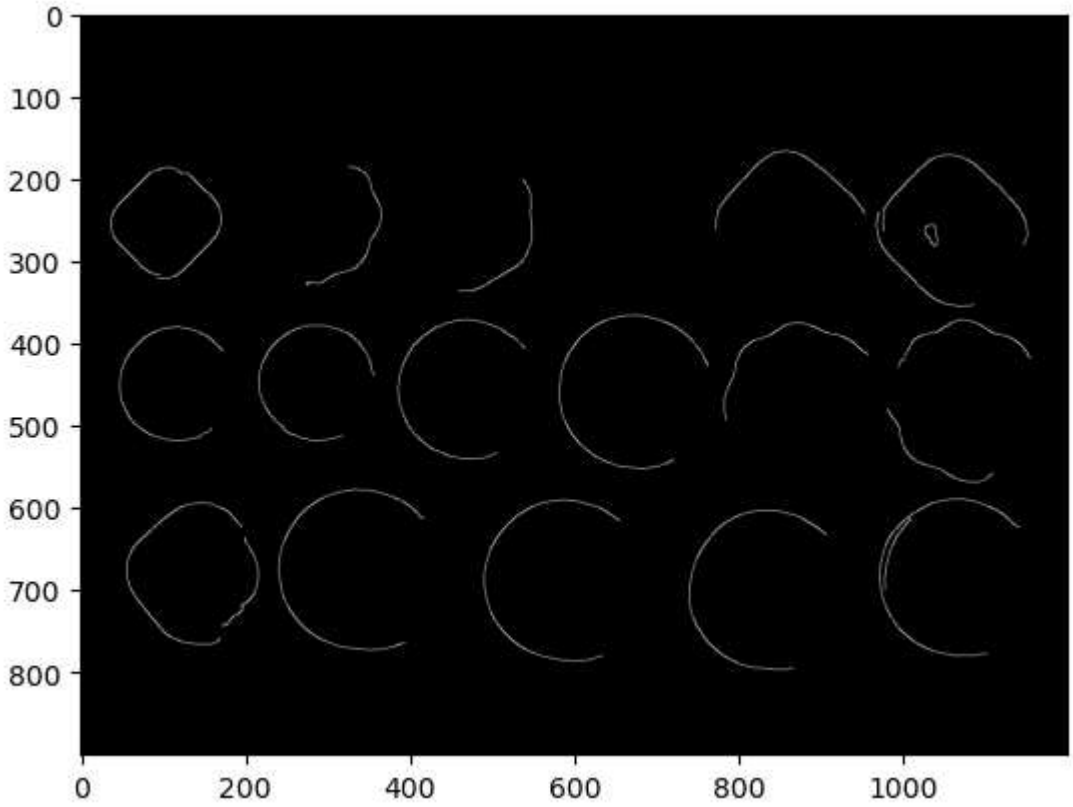
Out[5]:
```
<matplotlib.image.AxesImage at 0x15c545263d0>
```

In [7]:
```
blur=cv2.GaussianBlur(gray,(11,11),0)
plt.imshow(blur,cmap='gray')
```

Out[7]:
```
<matplotlib.image.AxesImage at 0x15c54693250>
```

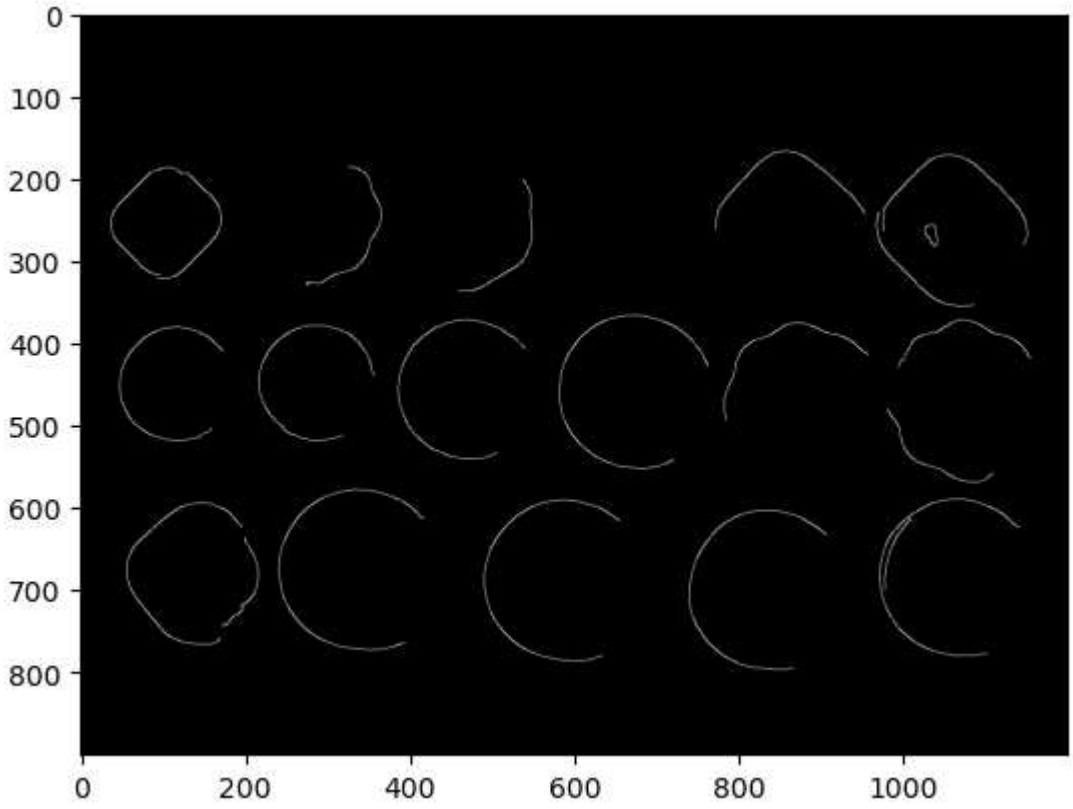
In [9]:
```
canny=cv2.Canny(blur,30,150,3)
plt.imshow(canny,cmap='gray')
```

Out[9]: <matplotlib.image.AxesImage at 0x15c56eeb850>



In [12]:
```
dilated=cv2.dilate(canny,(1,1),iterations=0)
plt.imshow(dilated,cmap='gray')
```

Out[12]:
```
<matplotlib.image.AxesImage at 0x15c56f58dc0>
```



In [13]:
```
(cnt, hierarchy) = cv2.findContours(dilated.copy(), cv2.RETR_EXTERNAL, cv2.CHA
rgb = cv2.cvtColor(image, cv2.COLOR_BGR2RGB)
cv2.drawContours(rgb, cnt, -1, (0, 255, 0), 2)

plt.imshow(rgb)
```

Out[13]:
```
<matplotlib.image.AxesImage at 0x15c56fc94f0>
```

In [14]:
```
print("coins in the image : ", len(cnt))
```

```
coins in the image :  22
```