表项单元的数组,它们也在图 5-14 中表出。HashEntry 引用数组的每一项是下列 3 种情形之一:

```
public class QuadraticProbingHashTable<AnyType>
 2
     {
 3
         public QuadraticProbingHashTable( )
           { /* Figure 5.15 */ }
 5
         public QuadraticProbingHashTable( int size )
 6
           { /* Figure 5.15 */ }
 7
         public void makeEmpty( )
 8
           { /* Figure 5.15 */ }
 9
10
         public boolean contains( AnyType x )
           { /* Figure 5.16 */ }
11
12
         public void insert( AnyType x )
13
           { /* Figure 5.17 */ }
14
         public void remove( AnyType x )
           { /* Figure 5.17 */ }
15
16
17
         private static class HashEntry<AnyType>
18
19
             public AnyType element; // the element
20
             public boolean isActive; // false if marked deleted
21
22
             public HashEntry( AnyType e )
23
               { this( e, true ); }
24
25
             public HashEntry( AnyType e, boolean i )
26
               { element = e; isActive = i; }
27
         }
28
29
         private static final int DEFAULT_TABLE_SIZE = 11;
30
31
         private HashEntry<AnyType> [ ] array;
                                                 // The array of elements
32
         private int currentSize;
                                                  // The number of occupied cells
33
34
         private void allocateArray( int arraySize )
35
           { /* Figure 5.15 */ }
36
         private boolean isActive( int currentPos )
37
           { /* Figure 5.16 */ }
         private int findPos( AnyType x )
38
39
           { /* Figure 5.16 */ }
40
         private void rehash( )
41
           { /* Figure 5.22 */ }
42
43
         private int myhash( AnyType x )
           { /* See online code */ }
44
45
         private static int nextPrime( int n )
46
           { /* See online code */ }
         private static boolean isPrime( int n )
           { /* See online code */ }
48
49
   }
```

图 5-14 使用探测方法的散列表的类架构,包括嵌套的 HashEntry 类