



FIGURE 14-1. *SmallInteger hierarchy*

1. Determine the class of the receiver.
2. Search for the message selector in the class and the class ancestors.
3. Retrieve the method associated with the message selector at the class where it was found.

Not only are things like numbers objects in Smalltalk, classes are objects in Smalltalk too. Hence, *SmallInteger*, *Object*, *Rectangle*, etc. are all objects. When the interpreter searches for the message selector in a class (step 2 in the list), it searches for it in the contents of the corresponding class object. To be more precise, it looks it up in its method dictionary. An instance of the *Dictionary* class associates key with values; a method dictionary associates each selector with an instance of the corresponding *CompiledMethod*.

As an aside, *intersects:* can be implemented elegantly in Smalltalk as:

```
(origin max: aRectangle origin) < (corner min: aRectangle corner)
```

To see why this works, you need to know that the *origin* selector returns the upper-left point of a rectangle (an instance of class *Point*), the *corner* selector returns the bottom-right point of a rectangle, *max:* returns the lower-right corner of the rectangle uniquely defined by the receiver and the argument, and *min:* returns the upper-left corner of the rectangle uniquely