Filesystems

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The inode is a fixed size structure (stored on disk) that contains all the information about a file, its *metadata*

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- Pointers to areas on the disk where the actual data lives

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`ff.html`	42
`mydata`	7

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Originally just a table, these days clever datastructures are used to manage the large numbers of names we use

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In some sense, the inode number is the true name of the file

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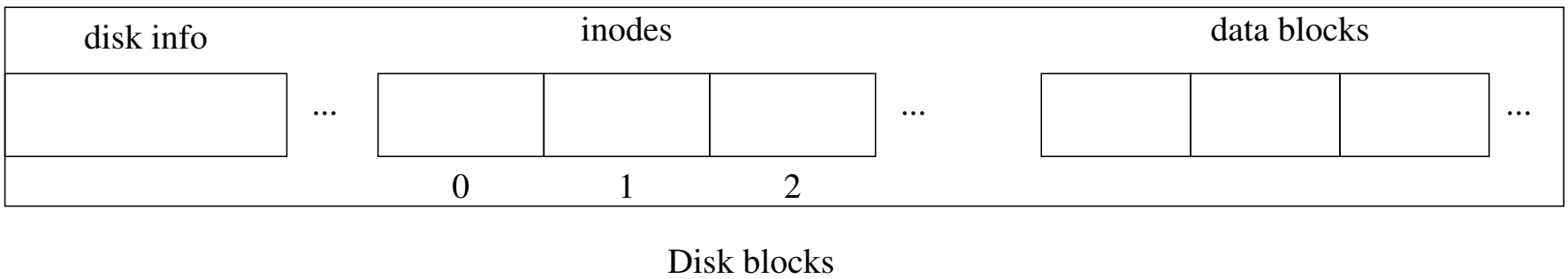

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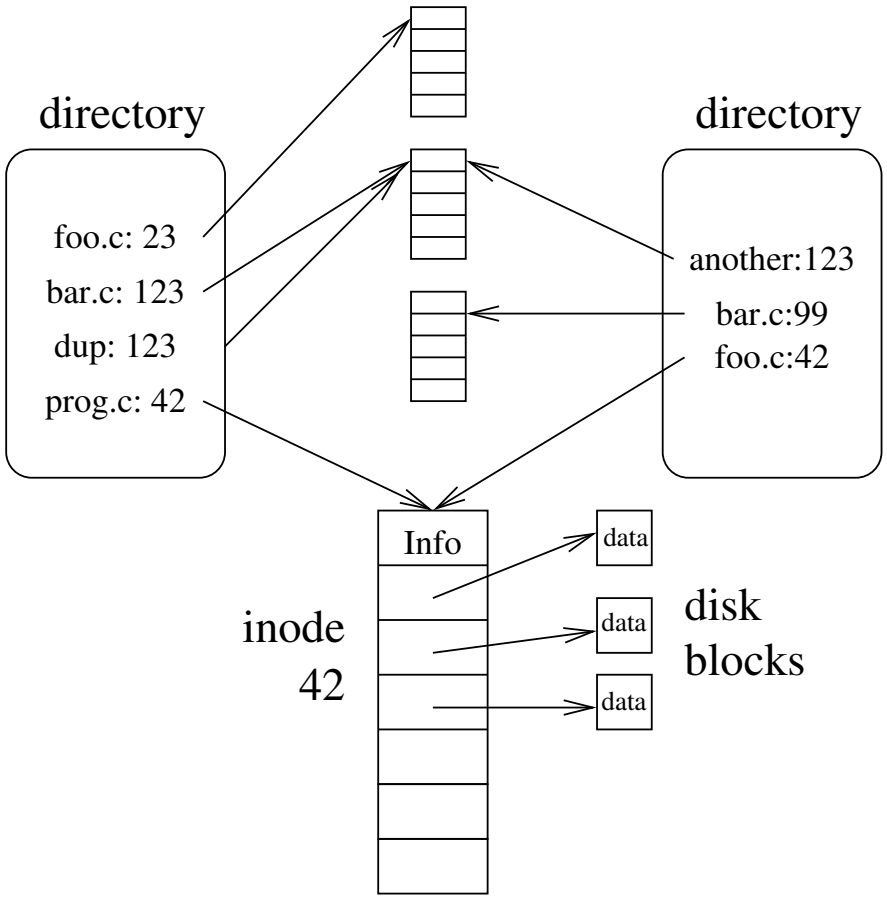

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The name `.` refers a directory back to itself. This often turns out to be useful to do

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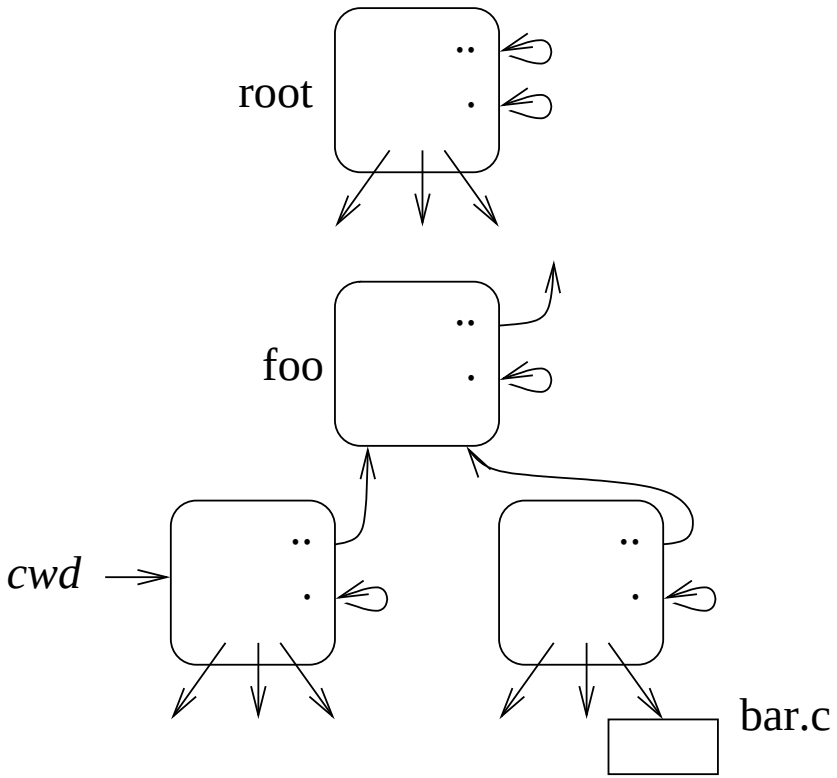

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Deleting a file is a matter of

- Removing the name reference in the relevant directory
- Decrementing the reference count in the inode
- If the count reaches 0, we can free the inode and the disk blocks it refers to

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No other process can see this file: there is no name in any directory